Modern packaging



Nominated for packaging's Hall of Fame. Story on Page 90

January 1950

NEVER BEFORE PUBLISHED!



Authoritative! National's new handbook, "How To Handle Adhesives For Transparent Films" has been approved by leading transparent film makers. Lists films by trade names, grades, gauges, characteristics. Recommends adhesives. Suggests handling procedures based on more than 50 years' adhesive experience by National.

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EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE


Phoenix Metal Cap Co. Chicago & Brooklyn

Modern packaging

Vol. 23 No. 5 January 1950

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problem:

B A 4-DRAM BOTTLE
A CIRCULAR
AND—AN EYE DROPPER

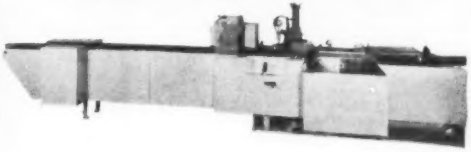
—to be cartoned snugly, safely, smoothly...

C



D the answer

REDINGTON



BECAUSE of the size of the carton of Murine—famous preparation for the eyes, and because an eye-dropper must be enclosed with each package, Redington engineers devised special plans to accomplish this most efficiently. The job had to be smooth, sure and continuous. It was—and it is.

A PROPER WAY WITH DROPPERS. The article pockets that make up the intake conveyor of this cartoner were made *extra long*. Furthermore, both walls of the article pockets have slits in them at the back end of the pocket.

After circular is fed from magazine and folded it is then placed over the top of bottle but the extended ends of circular are placed in the slits of the article pocket. Bottles are transferred from intake belt and laid over into the article pockets at the front end. This leaves the back end of pocket clear so that droppers (in their glassine envelopes) can be placed by attendants in the back end of the pocket.

THERE IS NO INTERFERENCE on the part of circular. The extra room at the back of the pocket permits cap of dropper to be beyond top of bottle . . . simplifying the hand feeding of droppers.

Cartons are fed from magazine and expanded in the usual way. Contents of pocket . . . bottle, dropper, and circular . . . are then inserted through the back end of article pocket into the carton, and carton is closed by tucking in the end flaps.

EXPERT SPECIAL PLANNING has always been a definite part of Redington service to clients. The outstanding advanced design features of the Redington Cartoning Machines themselves contribute much to such planning. They offer unusual adaptability to your every production requirement for economical, high quality cartoning. Whatever *your* cartoning problem may be—*Your answer, TOO, is REDINGTON!*

1897 REDINGTON 1950
53 Years of Packaging Leadership

AUTOMATIC CARTONING • WRAPPING • SPECIAL PACKAGING

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TELEVISION DREAMSTUFF

TELEVISION SET MANUFACTURERS frequently recommend the use of an optical filter over the viewing screen to cut down the glare and sharpen the image. There ought to be a similar device to clarify the razzle-dazzle that some people are getting as to the effect of television on package design.

Television is a new and exciting medium for the promotion of packaged products. But let's not get so excited that we lose sight of the basic objective of package design—which is to identify and sell the package at the point of sale.

It's true that package colors chosen for eye appeal on the shelf may wash out and lose their identity when translated to black and white on the screen of the television receiver. It's true also that Milton Berle may appear to have a three-day growth of beard if he fails to apply pancake make-up liberally before going under the cameras. The remedies for Berle and for your package are one and the same. Retouching of the camera subject—or, many cases, simply the use of the proper color filters in the television camera—will restore the proper values. It would be as ridiculous to change the colors of 10,000,000 good shelf packages because one prototype appears before the television cameras five minutes a week as it would be to bar Milton Berle from telecasting because he happens to grow whiskers.

Simple, bold package design is of course a requisite for good television reproduction. But it is equally a requisite for selling in the A & P. No new consideration has been added by the wonders of pictures-in-the-air. If you have an antiquated, cluttered package you had better change it—not because of television, but to *sell*.

Our advice to package designers: Climb off that television band wagon. The good package is the package the customer takes home. Any tampering with on-the-spot, eye-appeal colors just to make an easy job easier for the television technicians is not only silly, but downright dangerous.

The Editors

THE PACKAGING PULSE

PACKAGE SOCKS SELL FASTER: 300% to 400% increase is reported by retailers, in the sales of Ripon Knitting Works' Athletic Socks, since the socks have been packaged in color-printed cellophane. Displays are much more effective. Customers are attracted by the brightly colored packages and convinced by terse selling copy. Natural results—more sales.

★

CRACKS EASTERN MARKETS: Members of the Santa Cruz Artichoke and Brussels Sprouts Growers Association credit prepackaging in transparent bags for extension of markets for western Brussels Sprouts. By precooling, precleaning and prepacking, they have made sprouts a highly popular vegetable with eastern city "cliff dwellers" who like the ease of preparation in their kitchens.

★

CRANBERRIES EXTEND SEASON: These tasty, red berries which look so good and are so delicious that they make an "occasion" of any meal, should be better than ever this year. That's because the crop is now being packed in transparent cellophane bags, mostly with Dobeckmun's "Trap-Door" Perforations, to preserve their appetizing appearance and piquant flavor.

★

OUTSELLS SMALL PACKAGES: National Retail Owned Grocers have been packing rice in 12-oz., 1-lb., and 2-lb. cartons. The 2-lb. item moved slowly. To gain more volume and at the same time reduce the number of transactions, they started packing in 2-lb. printed cellophane bags, using their same trade name—"SHURFINE". Result—the new, 2-lb. package is now selling more than the 12-oz. and 1-lb. cartons, combined.

★

PRINTED CELLOPHANE COST LESS: Minette Mills at Grover, N. C., replaced hand-tied, ribboned packages, overwrapped with plain cellophane, with attractive, color-printed cellophane wrappers for their table linens. They report 20% saving on packaging cost and 40% on labor with the new package. And—they have gained in better display—naturally resulting in increased sales.

★

SUCCESSFUL PACKAGES, such as those mentioned above, are created by Dobeckmun and flow from our plants in millions to help protect and sell the products of farms and industry. Ask us for suggestions to increase the effectiveness of your packages. The Dobeckmun Company, Cleveland 1, Ohio. Berkeley 2, California.



PRODUCE B-R-E-A-T-H-E-S with "Trap-Door" Perforations

Fresh fruit and produce that need to breathe will keep better, look better, sell better, in cellophane packages with "Trap-Door" Perforations.

Stale gases go out the window when contents get a chance to breathe through Dobeckmun's new "Trap-Door" Perforations in cellophane bags, packages and overwraps. Tiny, horseshoe slits open for the exit of CO_2 and odors. They also permit entrance of fresh air to sweeten the breath of enclosed products.

This startlingly simple but effective Dobeckmun invention* operates like a smoothly-hinged ventilator. It responds to the slightest difference between external and internal pressure. The inherent moisture-proof properties of cellophane are scarcely affected. Contents won't catch and tear the film because openings are so small. They release excess air trapped during packing operations.

Most important, printed viscose cellophane with "Trap-Door" Perforations costs substantially less than acetate film, sealed with adhesives.

To make your products keep better, look better, sell faster, ask for details on cellophane packages with "Trap-Door" Perforations, an exclusive Dobeckmun developement. *The Dobeckmun Company, Cleveland 1, Ohio. Berkeley 2, Calif.*

Branches at Atlanta, Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, St. Louis, St. Paul and Seattle. Representatives everywhere.

DOBECKMUN

*Patent applied for on "Trap-Door" Perforations.

"It's in the Bag"

says Crivella

My Traver designed family style produce packages bring garden fresh vegetables to consumers and more profits to me. They make "a look a purchase" wherever they are on sale.

Traver experts do a complete job from design to finished package. Our long years of experience in flexible packaging is at your service.

Call your Traver representative today—There is no obligation. Sales offices in Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Kansas City, St. Louis, Dallas, Detriot, Oakland.



Colorfully printed transparent cellophane bags not only add sales appeal but the extra protection that brings produce to consumers fresh and crisp.

Traver
CORP.

366 W. ONTARIO STREET
CHICAGO-10, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLIOFILM, PLASTICS, ACETATES, FOIL AND GLASSINE

Check this GEON packaging guide

...for new sales-building ideas

13 TYPICAL USES FOR VERSATILE GEON POLYVINYL MATERIALS

MATERIAL		TYPICAL USE
GEON LATICES for coating paper, paper board, fabrics, and for casting flexible films.	Geon Latex 651	Coated paper for food packaging.
	Geon Polyblend Latex 550 x 20	Coated boxboard for food cartons.
	Geon Latices 11X and 15X	Decorative and protective coatings for wrapping paper and fiber shipping containers.
	Geon Plastic Latices PX-8 and PX-18	
GEON POLYBLENDS for extruding packaging films and for molding liners and gaskets.	Geon Polyblend 500 x 503	Food packaging film.
GEON RESINS for calendering rigid transparent sheets, for molding gaskets and liners, and for casting or extruding packaging films.	Geon 100 and 200 series resins	Rigid transparent boxes, flexible shipping bags and bag liners.
	Geon paste resins	Protective coatings, linings, and seals.

GEON polyvinyl materials can help you improve or develop packages, trims, covers, liners, etc.—economically and profitably. For these versatile materials have a range of qualities that meet practically any need in the packaging field.

Products made with Geon resist heat, cold, aging, weather and wear. They can also be made resistant to water, oil, grease, acids and alkalies. Colors can be brilliant or delicate, as desired.

Geon materials may be used as coatings, calendered, extruded or cast into film. And though we make no finished products from any of our raw materials, we are always ready to give you helpful, technical advice. Write at any time. Please address Dept. GJ-1, B. F. Goodrich Chemical Company, Rose Bldg., Cleveland 15, Ohio.



B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers



Hundreds of manufacturers whose packages lack the sales appeal at point of sale to bring out customers' eyes and sighs, turn to Worcester Moulded Plastics Company to give their packages "plastic popularity." Our complete custom injection moulding service, from die designers to finishers and inspectors, takes pride in helping your package to win friends and influence sales, with come-hither colors and dependable durability. What's more, we can guarantee a volume to dovetail with your own. If you have a package that is shy and retiring let us plastically revamp it to make it tell and sell for you.



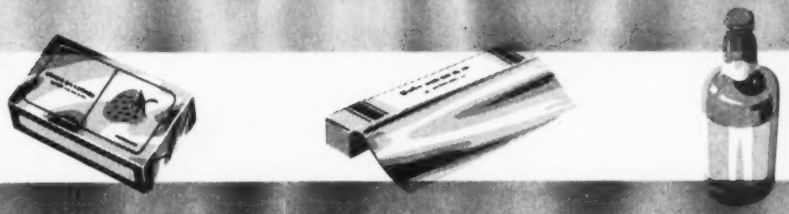
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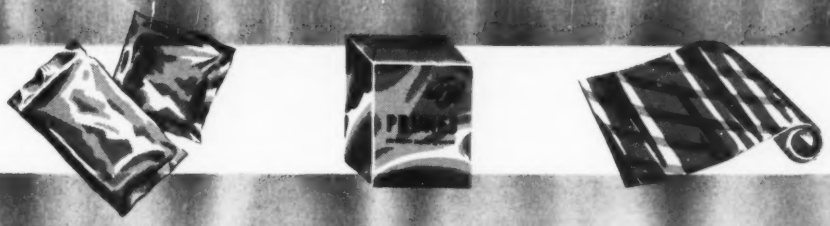
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IS TOPS FOR



CONVERSION

Leading foil converters choose Republic foil to assure themselves of top quality and service.

Republic quality is achieved by using the most modern foil rolling equipment combined with technical know-how and experience. Republic service is flexible, and is based on proficient, fast handling of both small and large orders.

Republic produces only plain aluminum foil . . . we do no printing, no converting of any kind.

We solicit orders and inquiries from users of plain foil. Should your requirements be for converted foil products, we will gladly direct you to sources for such materials.

REPUBLIC

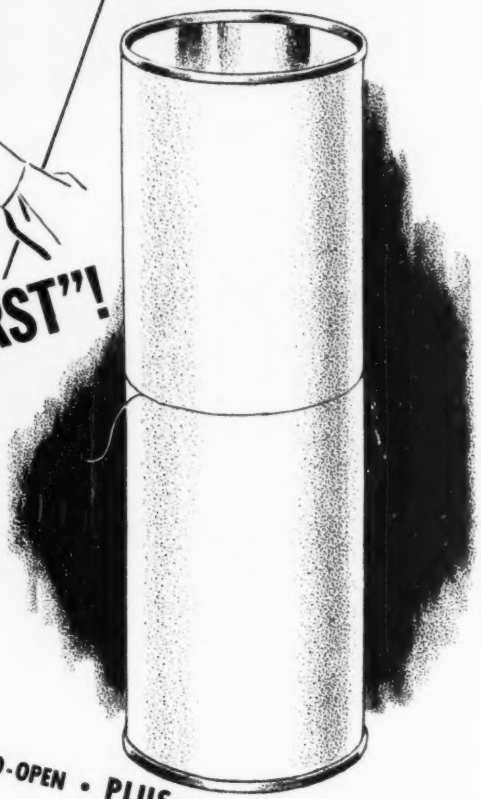
Republic Foil & Metal Mills
INCORPORATED
DANBURY, CONNECTICUT

Sales Offices: 209 W. Jackson Blvd., Chicago 6, Ill.
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REMEMBER REPUBLIC FOR FINE FOIL

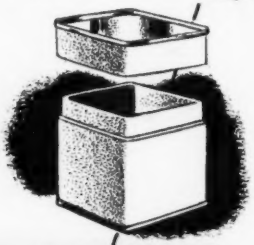


ANOTHER SEFTON "FIRST"!



AMAZING SINGLE TELESCOPE STRING-OPENING CAN THAT HAS "EVERYTHING"!

IT'S FACTORY-SEALED • TAMPER-PROOF • EASY-TO-OPEN • PLUS A BUILT-IN RECLOSURE FOR EASY CLOSING, TOO!



True to Sefton tradition, when advances are made in packaging technology, Sefton designers make them! Witness this latest innovation . . . a single telescope can that has all the advantages of a string opening can PLUS an extra feature . . . a built-in reclosure! It's available in round, oval, square or oblong shapes in the host of sizes for which Sefton is noted for being tooled. Be among the first to profit by Sefton's all-purpose, new single telescope can! It's the final word in sales-boosting packages!

Sefton FIBRE CAN COMPANY

ST. LOUIS . . . . . NEW ORLEANS
AUBURN, WASH.

DIVISION OF CONTAINER CORP. OF AMERICA

DISTRICT OFFICES: • Los Angeles • Salt Lake City • Denver • Dallas • Chicago • Cincinnatti • New Orleans • Boston • Detroit • New York • St. Paul • Cleveland • Memphis • Nashville • Seattle • Portland

YOUR PRODUCT in POLYETHYLENE



enters the Charmed Circle of SALES

GER-PAK POLYETHYLENE PROTECTION

GER-PAK is the ultimate in polyethylene packaging . . . *primarily PROTECTIVE!* Yet it permits complete sales-boosting visibility; imparting sparkle, brilliance and consumer sales appeal to your products. Twenty-eight years of experience in the plastics industry has given Gering the technical know-how to produce polyethylene packaging materials better!

Investigate! Use GER-PAK Polyethylene film in specifications most practical for YOUR products go-to-market getup. Our packaging division will be of great help in this, and in planning the right wrapper, bag, package.

GP PLASTIC MATERIALS

GERING PRODUCTS, Inc.

CABLE ADDRESS: GERING KENILWORTH, N. J.

BIG Mother's ~~little~~ helper-

Planning interesting family menus takes lots of thought and skill. Bennett's line of dressings and spreads is a mighty big help in adding variety and appetite appeal to any family's meals.





Recipe Foods, Inc., Baltimore, Md. and Terre Haute, Ind., is another of the many packers who have selected Crown Closures for their products. They know that when they come to Crown they are sure of getting closures that are satisfactory in every way.

Why not bring *your* sealing problems to Crown? Crown has years of sealing experience and analytical laboratories that are completely equipped to duplicate all processing or packing conditions on a small scale. These facilities are at your disposal to help you determine *scientifically* the closure that is correct for your particular product. For complete satisfaction on all your closure needs . . . come to Crown. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

Approved by Millions of Housewives

At the Canners' Exposition in Atlantic City, Crown will be at Booth A-13, Convention Hall, January 27-30; Hospitality Room 1408-1409, Claridge Hotel

FOIL

PUTS MOTION INTO YOUR PACKAGE



FOIL CARTONS *speed up your* SALES



Yes, Foil Cartons speed up sales. Why? Because Foil appears to be a moving display. Its surface is like a mirror that reflects an ever moving pattern of lights and shadows. Convince yourself! Walk past a Foil box and see for yourself how this play of light and shadow animates the package. Motion . . . strongest of all aids in point-of-sale displays . . . can be yours with Foil Cartons. Write for a free copy of "Magical Formula" and learn how Foil can help you sell more . . . faster!

BOARD MILLS:
Lockport, New York
Thomson, New York
Urbana, Ohio

CARTON PLANTS:
Victory Mills, New York
Syracuse, New York
Brooklyn, New York
Cohoes, New York
Springfield, Ohio

UNITED BOARD AND CARTON *Corporation*

P. O. Box 1318 • Syracuse, New York



FORMAL NOTICE! 9th November, 1949

EXCLUSIVE!

U. S. Patent #2,487,400

The Tupper Corporation has attained a position of leadership in this industry by incurring great expense and expending painstaking effort in the development, design, manufacture and exploitation of its many world-known products.

The Tupper Corporation further has anticipated the inevitable attacks to which leadership is subject and has taken measures provided by law to preserve the creative rights to its products, methods and design by patent protection both in the United States and abroad.

Tupper Seals for Tupperware shown in this advertisement are just a few of the forms covered in this manner and are specifically covered by U.S. Patent #2,487,400.

Only the Tupper Corporation, by U.S.Patent #2,487,400 has the right to make, use and vend container closures in connection with any and all types of containers throughout the United States and its territories as covered by the claims of the Patent.

Tupper Corporation will protect, according to law, the exclusive rights above granted

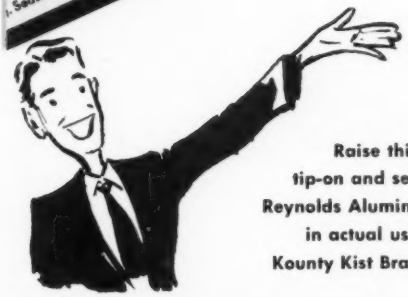
TUPPER CORPORATION

Manufacturers of — CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

FACTORIES: Farnumsville, Mass., and Cuero, Texas New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Department A





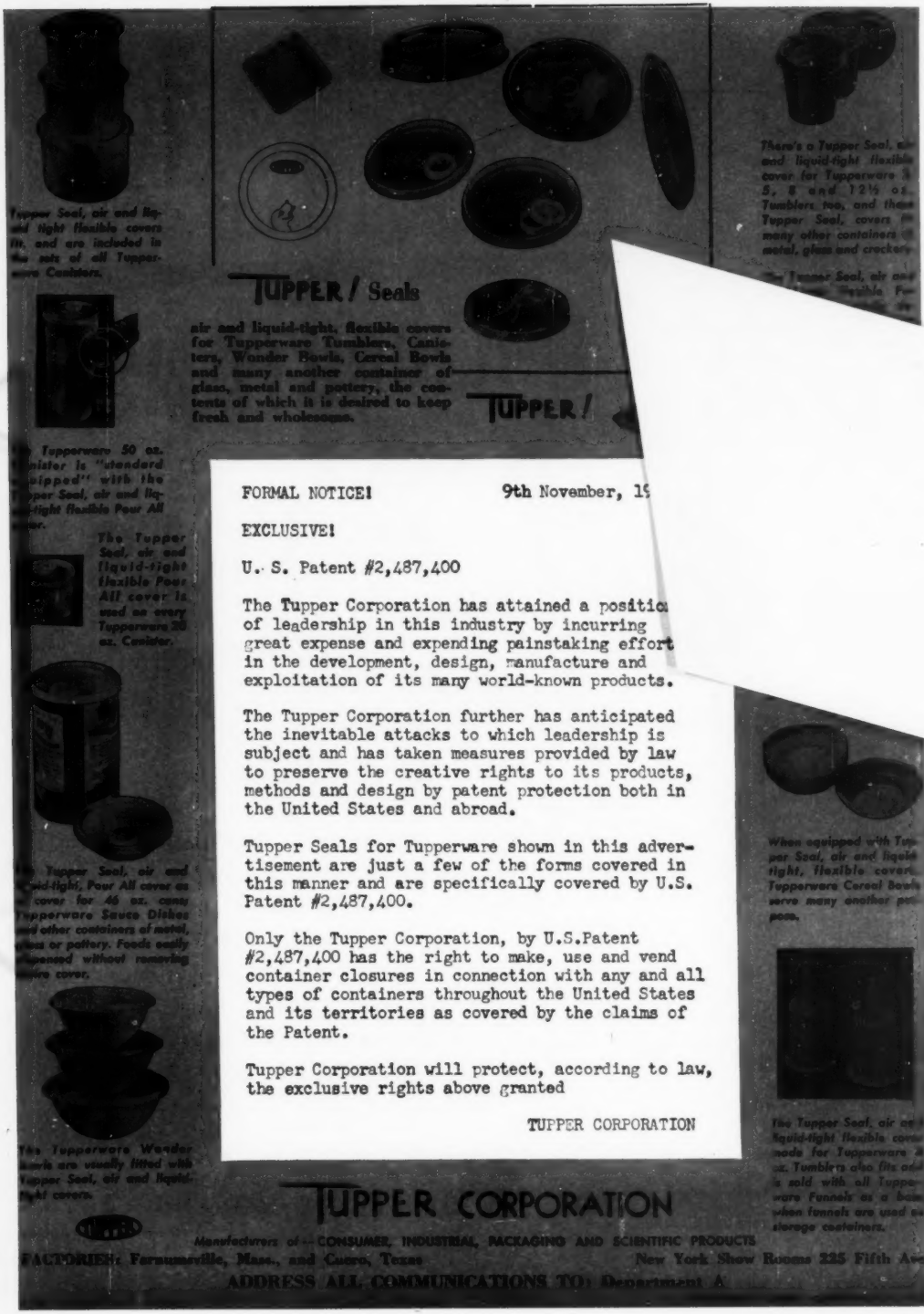
Raise this
tip-on and see this
Reynolds Aluminum label
in actual use on
Kounty Kist Brand Corn

Kounty Kist Brand Corn now stands out on grocers' shelves like the label on this page . . . with all the sales-compelling richness and brilliance of Reynolds Aluminum. It's an all 'round wrap on the Kounty Kist can. Whichever way the can is turned, it catches the shopper's eye . . . *reflects* quality . . . sells itself. Let us show you, on your own product, the self-selling magic of Reynolds Aluminum.

REYNOLDS METALS COMPANY,
RICHMOND 19, VA.

REYNOLDS METALS

REYNOLDS ALUMINUM


TUPPER / Seals
air and liquid-tight, flexible covers for Tupperware Tumblers, Canisters, Wonder Bowls, Cereal Bowls and many another container of glass, metal and pottery, the contents of which it is desired to keep fresh and wholesome.
TUPPER /
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9th November, 19
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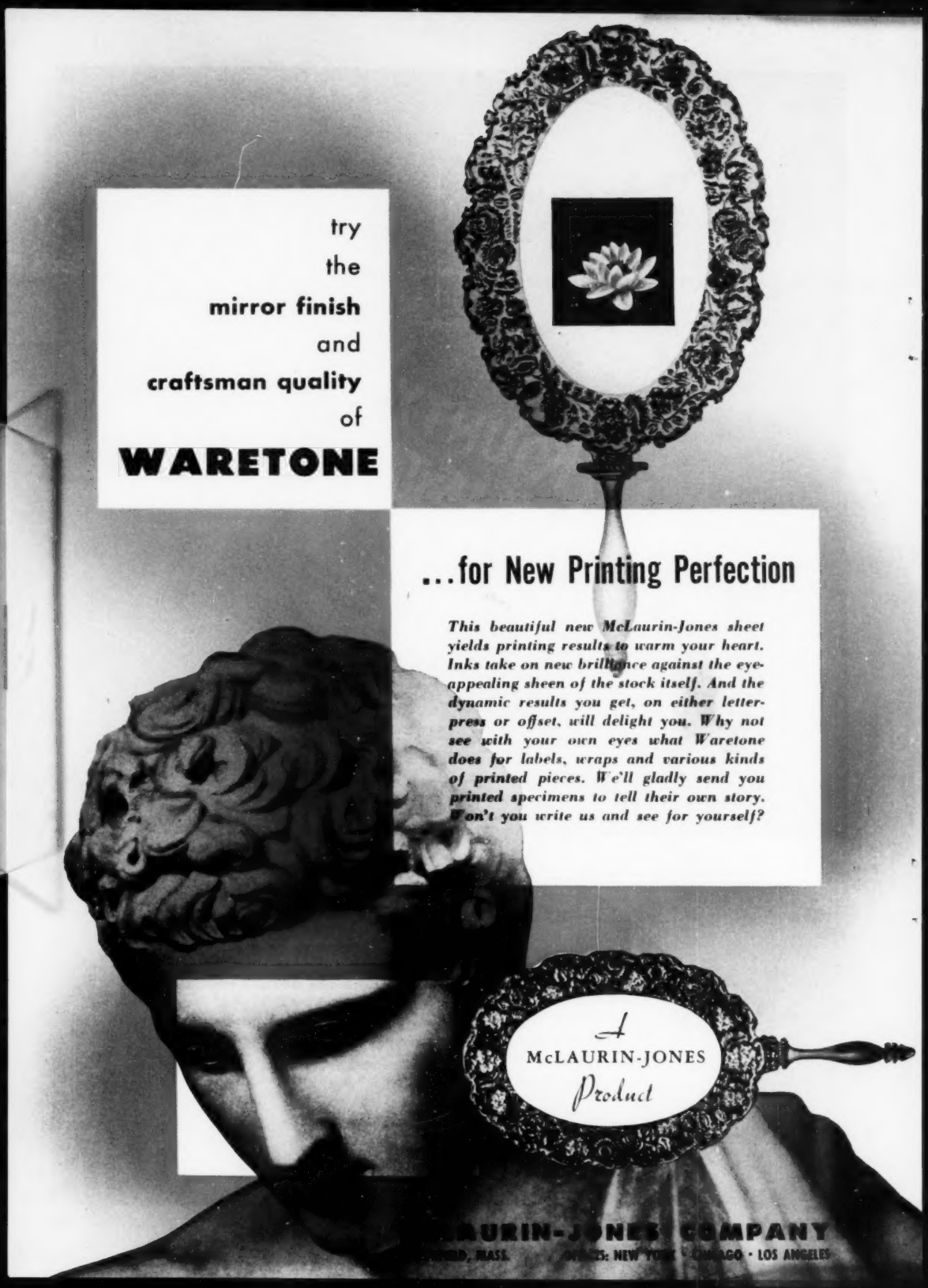
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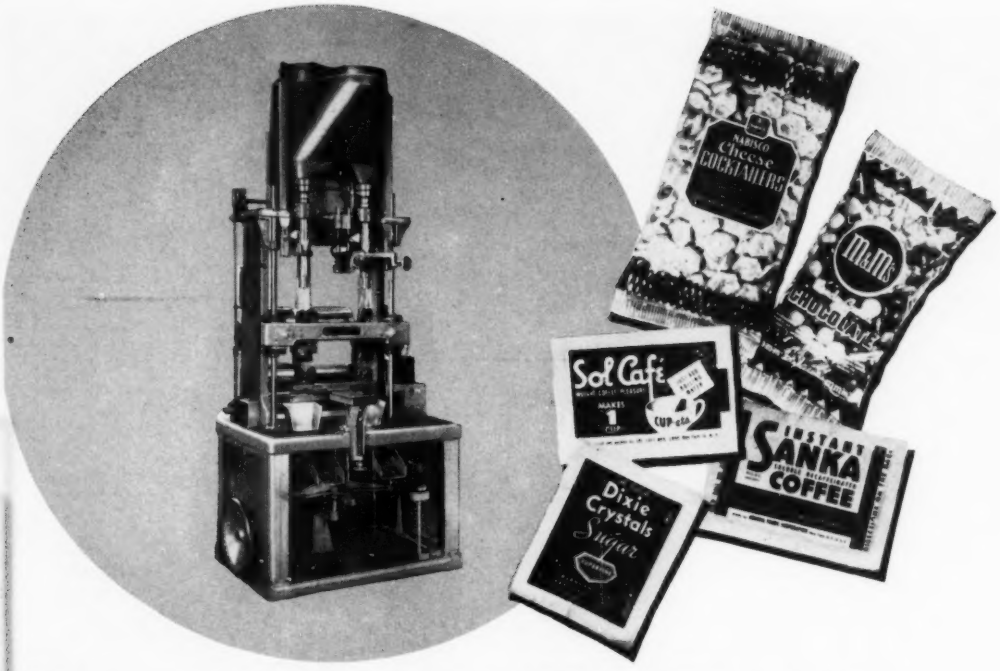
REYNOLDS METALS COMPANY,
RICHMOND 19, VA.

REYNOLDS METALS

REYNOLDS ALUMINUM


try
the
mirror finish
and
craftsman quality
of
WARETONE
...for New Printing Perfection
This beautiful new McLaurin-Jones sheet yields printing results to warm your heart. Inks take on new brilliance against the eye-appealing sheen of the stock itself. And the dynamic results you get, on either letterpress or offset, will delight you. Why not see with your own eyes what Waretone does for labels, wraps and various kinds of printed pieces. We'll gladly send you printed specimens to tell their own story. Won't you write us and see for yourself?
A
McLAURIN-JONES
Product
AURIN-JONES COMPANY
D, MASS.
S: NEW YORK · CHICAGO · LOS ANGELES


The Handiest
Bottle Ever Made!
ELMER E. MILLS CORPORATION'S
Polyethylene
Plastic Bottle
This is *the* bottle with consumer appeals so strong they actually help sell your product!
It's unbreakable—a powerful consumer selling point on safety and thriftiness.
It's lightweight—takes up less space (and incidentally cuts your shipping cost).
It's a "squeeze bottle"—can be readily adapted to use as a stream—as a spray—as a sprinkler finish.
Our stock bottle is available in 1—2—4—8 ounce sizes. Through a special printing process we can print your label or design right on the bottle.
In addition to the production of this stock bottle and stock closure, we also custom make other thermoplastic bottles, closures and atomizers. You can depend upon their being made with the same high standards of craftsmanship which keynote all Mills plastic products.
For more information on our custom molding service, or for a free sample bottle, write us or our sales agent today.
ELMER E. MILLS CORPORATION
2930 N. Ashland Ave., Chicago 13, Illinois
Sales Agents: W. BRAUN & COMPANY
Chicago, 300 N. Canal St. New York, 595 Fifth Ave.



FORM, FILL AND SEAL *YOUR* PACKAGE WITH THE STOKESWRAP PACKAGING MACHINE

The Stokeswrap Packaging Machine forms, fills and seals the package, taking the printed or imprinted web from the roll — at speeds from 50 to 120 packages per minute, depending on size of package, kind of web and nature of material.

The web may be of Cellophane, Pliofilm or approved heat-sealing paper or foil. Plain printed — single, double or laminated — web can be used as supplied by any convertor; and the package may be either of the pillow type, or with gusset folds. *Heat-sealing insures a tight package,* yet the serrated or notched cut-off makes it very easy and quick to open.

STOKES & SMITH Co

subsidiary of Food Machinery and Chemical Corporation

PACKAGING MACHINERY PAPER BOX MACHINERY

FRANKFORD • PHILADELPHIA 24 • PA.

fmc

Exclusive West Coast Distributor:
Anderson-Barngrover Division of FMC
San Jose 5, California

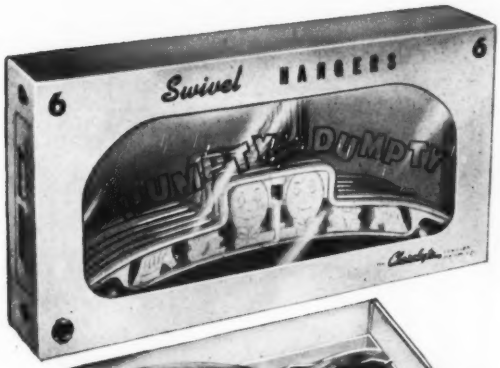
"Better machines for better packages"

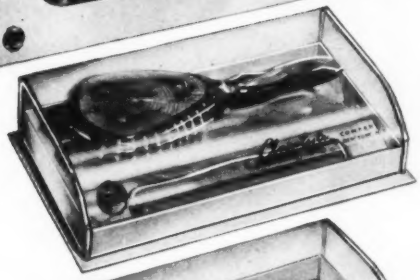
The Baby Market

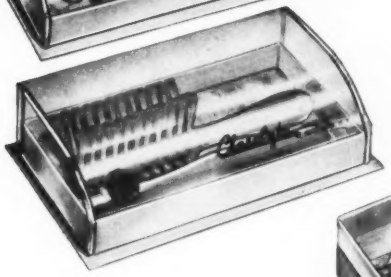


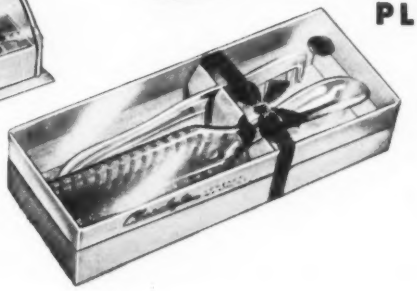
LOOKS LIKE THIS...

LUMARITH* TRANSPARENT FILM PACKAGING WILL SELL IT!









Transparent Container by: Newton Carton Company, Newark 5, N. J.

Who buys for baby? The answer is—just about everybody but baby! That's why infants' wear—the necessities as well as the luxuries—sell better when they're packaged as a gift.

The Clarolyte Company, Inc., of New York reports the Lumarith transparent containers have helped multiply sales to the point where they have become leaders in the infant's fancy goods field. In a field that has traditionally used closed boxes on virtually all items from $.50 to $5.00, Clarolyte has found that a *look* at the product means more than a *low price*.

Today, when impulse and gift buying accounts for a substantial percentage of sales volume, your product is entitled to a package that sells . . . a package that makes a good product speak for itself.

If you are looking for a source of supply, check with the Celanese representative.

Celanese Corporation of America, Plastics Division, Dept. 8-A, 180 Madison Avenue, New York 16.

Celanese* PLASTICS

*Reg. U. S. Pat. Off.

Two More Examples

OF GARDNER PACKAGING INGENUITY...



Ingenious top "clicks" closed—stays closed—without a fastener!

Shoe boxes that actually help sell shoes... cut delivery costs...do an effective advertising job for the store

The possibilities of better packaging in any field are endless. For example, take the retail shoe business. Instead of handing a woman her new shoes in a paper bag, or sending them home in an orthodox box, smart retailers now are using handy, colorful Gardner-designed boxes that look like overnight cases. And what's been the result?

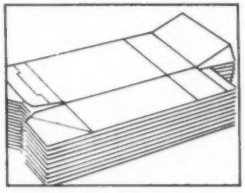
Women—particularly teen-agers and the campus set—want these boxes, and they go to the stores that feature them. They are more than shoe boxes. They're "neat" for carrying overnight articles, for use as sewing or knitting kits. They have that smart hand-bag look, and women are proud to carry their shoes out of the store in them. That not only cuts delivery costs, but with the store name imprinted on the box, it becomes a "walking billboard" for the store.

MAYBE WE CAN ADD MORE SALES-APPEAL TO YOUR PRODUCT

Gardner experts are old hands at putting new sales touches in all types of packages for all types of products—from electric irons and shotguns to tobacco seed. If you have a new product that needs a new packaging idea—an old package that needs a new touch of imagination—a product that's hard to package—get in touch with Gardner. We'll be glad to tackle the assignment. And without obligation, of course.



Automatic handle pops up as box is set up . . . snap clasp keeps box closed!



Boxes fold flat for economical storing and shipping—set up quickly and easily.

MAKE MORE EYES REACH FOR YOUR PRODUCT IN CARTONS OF COATED LITHWITE*

These smart shoe boxes make use of the extra eye-appeal of *Coated* Lithwite, the quality clay-coated board that's whiter . . . brighter. Colors hold up brilliantly on *Coated* Lithwite . . . pictures reproduce with true-to-life realism. Rub-resisting. Fade-resisting. Both cartons of *Coated* Lithwite and *Coated* Lithwite paperboard are available.

THE GARDNER BOARD AND CARTON CO.

Formerly The Gardner-Richardson Co.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg. U.S. Pat. Off.

Sales Representatives in Boston, Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

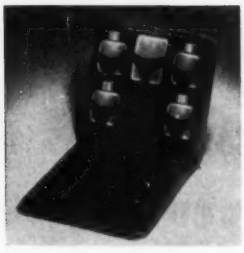
SIX NEW PACKAGING IDEAS



TUSSY'S WIND AND WEATHER lotion comes in an appealing Plaxpak polyethylene bottle shaped like a snowman and "dressed" in a black hat, black buttons and red woolen scarf. Unbreakability of bottle makes it convenient to use and carry anywhere.



CASCADE DE FLEURS COLOGNE by Jules Montenier is smartly packaged in a squeezable Plaxpak polyethylene bottle. User simply squeezes the bottle, accurately directing a mist-fine spray to hair, skin or clothing. No waste and easily packed for travel.



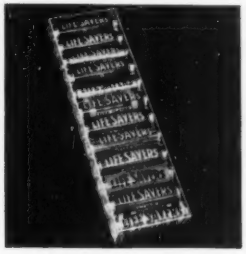
NEW SIMMONS BATH KIT features four empty, tapered-square Plaxpak polyethylene bottles. Milady can fill them with her favorite toiletries and use them without fear of breakage either at home or while traveling. Lightness of bottles is big help, too.



HEWITT EMPHASIZES RE-USE value of Plaxpak polyethylene bath salts bag fabricated by Kellogg Container Division, U. S. Envelope Co. Soft to the touch, the Plaxpak bag is tough and durable — a smart package in every way, full of sales appeal.



COLORFUL WRAPPERS of Plaxpak polyethylene film are now used to package the bubble bath tablets made by Trylon Products Corp., Chicago. The film forms a soft yet tough wrap that is moisture-resistant and will not tear during the packaging operation.



COMPLETELY SEALED, AIR-TIGHT and dust-tight, this Polyflex* salesman's sample display box gives desired rigidity, optical clarity, and eye appeal. Designed by Life Savers Corp. Fabricated by National Fabrilite Corp. New Haven. Polyflex* is low in cost.

★ In addition to its packaging products, Plax makes a wide variety of thermoplastics in rod, sheet, tube, and other forms.

New product ideas . . . new features to merchandise . . . improved convenience in packaging . . . these are the broad, basic benefits derived from Plaxpak and Polyflex* packaging materials. Take the path to greater salability; the first step is to see Plax.

For your greater convenience, Plaxpak polyethylene bottles are now being handled by the following distributors:

PHILADELPHIA, Zuckerman-Honickman, Inc.; BROOKLYN, N. Y., J. Rabinowitz & Sons, Inc.; CHICAGO, Continental Glass Co.; BOSTON, S. H. Ansel & Sons; ST. LOUIS, Northwestern Bottle Co.; LOS ANGELES, Container Service Co.

PLAX BLOW-MOLDED PRODUCTS ARE MADE UNDER THE FOLLOWING U. S. PATENTS: 2178728, 2179054, 2179058, 2179186, 2179190, 2179192, 2179193, 2179194, 2179195, 2179196, 2179197, 2179198. *TRADE MARK REG. U. S. PATENT OFFICE

PLAX
FOR PLASTICS
NOT SUBSTITUTES···IMPROVEMENTS

PLAX CORPORATION DIVISION, HARTFORD-EMPIRE COMPANY
P. O. BOX 1019, HARTFORD 1, CONNECTICUT
In Canada, Canadian Industries, Ltd., Montreal
Offices in New York City, Syracuse, Philadelphia, Chicago and St. Louis

"MAPLEINE" MANUFACTURER *cuts costs*



From the modern Seattle plant of Crescent Manufacturing Company flows an ever-increasing volume of "Mapleine" neatly cartoned on a Rockwell automatic machine. Cost-conscious housewives appreciate the economy of this maple flavor for making delightful table syrup and flavoring desserts. The cost-conscious "Mapleine" manufacturer reports the Rockwell cartoner is a big time and money saver. It is currently loading 94 bottles per minute, a conservative rate of speed that is governed by the balance of the equipment.

You, too, can save cartoning time and money through the speed, dependability and adaptability of Rockwell automatic cartoners. Get full facts today. Clip and mail the coupon for full information.

A change from one size carton to another is made in a few minutes time by simply resetting the position of dial controlled compounds that are permanently mounted on the machine bed.

Clip COUPON FOR FREE DATA

ROCKWELL PACKAGING MACHINES, INC.
Subsidiary of Rockwell Manufacturing Co.
Box 314, Hudson, N. Y.

B451

Gentlemen:

Please send me full information on Rockwell automatic cartoners for packaging _____
(Type of product)

We are sending samples ☐ yes, ☐ no. We are interested in single pack ☐ multiple pack ☐.

COMPANY _____

STREET _____

CITY _____ ZONE _____ STATE _____

YOUR NAME _____ POSITION _____

packaging



Mamspec

Moore and Munger Specifications

means

perfection in petroleum wax

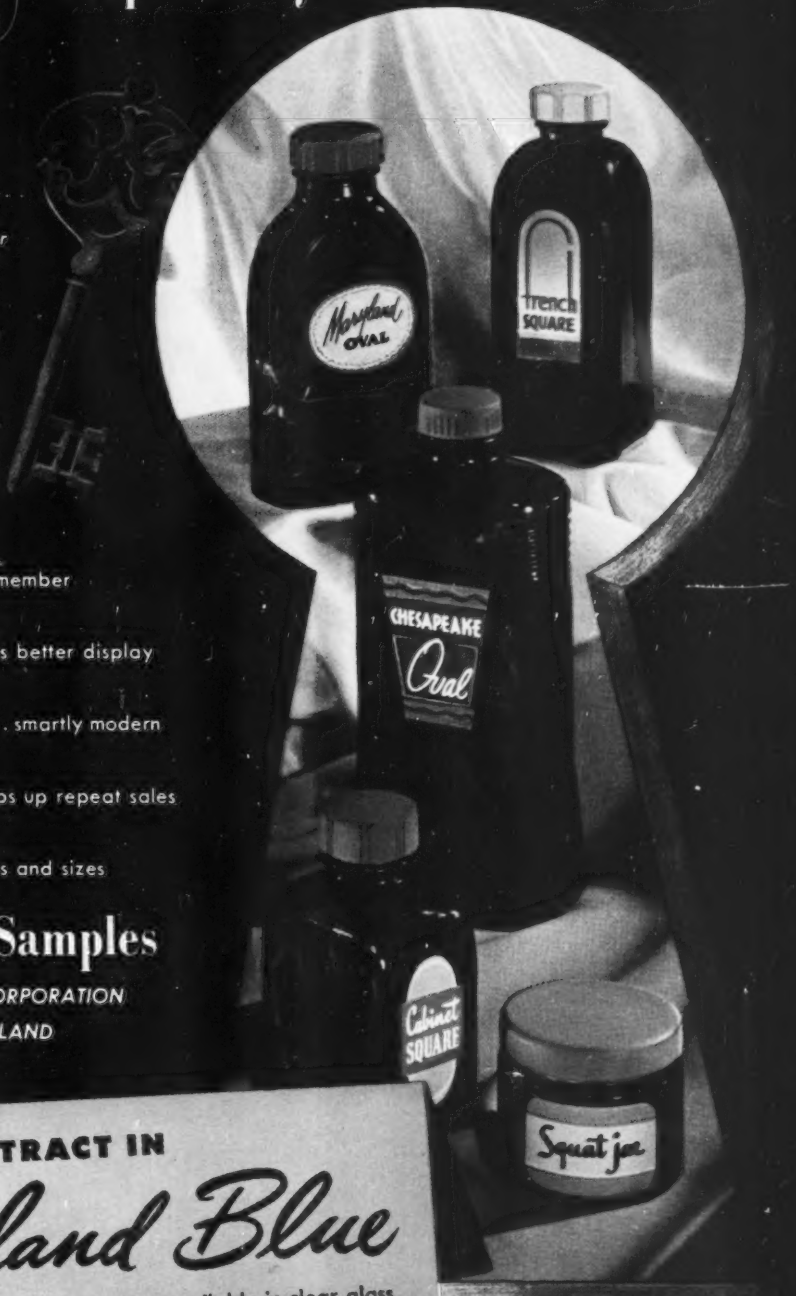
for every packaging need



MOORE & MUNGER—33 Rector Street—New York 6
Marketers of Petroleum Wax for Over Half a Century

Blue Stops the eye...Starts the Sale

BLUE *is the key to greater profits . . . helps open the door for your products. Acts as a powerful advertising, merchandising and sales tool.*



- easier to see and remember
- stands out . . . assures better display
- rich . . . distinctive . . . smartly modern
- builds profits . . . steps up repeat sales
- wide variety of styles and sizes

Write for Samples

MARYLAND GLASS CORPORATION
BALTIMORE 30, MARYLAND

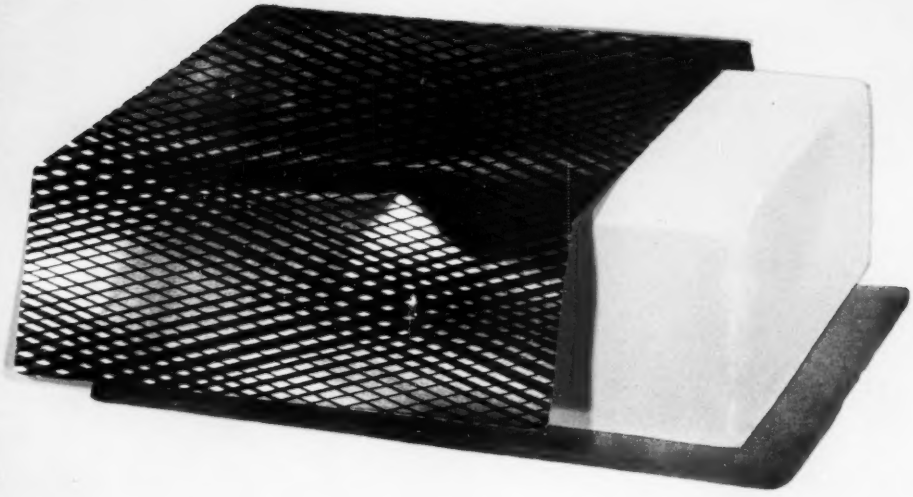
PACK TO ATTRACT IN

Maryland Blue

Also available in clear glass

Dairy Freshness

BEAUTIFULLY PROTECTED



Guarded from the effects of light and air, dairy produce will reach the consumer in perfect condition. Venesta Aluminium Foil provides the perfect wrapper for this and other essential foods. Your Product also gains in prestige when packed in Aluminium Foil printed with your own distinctive design by manufacturers with many years of experience in this specialised work. In shop window or on counter your product will be sure to attract more attention during the competitive years ahead if it is beautifully protected

with **VENESTA** *Aluminium* **FOIL**

A VENESTA PRODUCT

VENESTA LIMITED

VINTRY HOUSE, QUEEN STREET PLACE, LONDON, E.C.4. Telephone: CENtral 3060

Manufacturers of Plywood Containers, Tea Chests, Rubber Cases, Collapsible Tubes for Toothpaste and similar materials

175-124

for a greater profit margin

PACKAGE FOOD the DELTASEAL way*



It costs less to fill bags the Deltaseal way because filling and closing is faster . . . mostly automatic. There's less handling . . . more bags closed per hour.

And Deltaseal bags are easy to open. Customers just *pull, cut and pour.* The handy spout channels the food right into the measuring cup or storage container.

The Deltaseal closure gives a neat full-pack appearance and makes it easy to build attention-getting displays in stores. Your brand, printed in bright, sparkling colors adds still further to the sales-inviting appearance of the package.

Ask a Bemis representative about the economy of Deltaseal Bags and the Deltaseal Packaging System.

*** DELTASEAL BAGS plus the DELTASEAL PACKAGING SYSTEM**



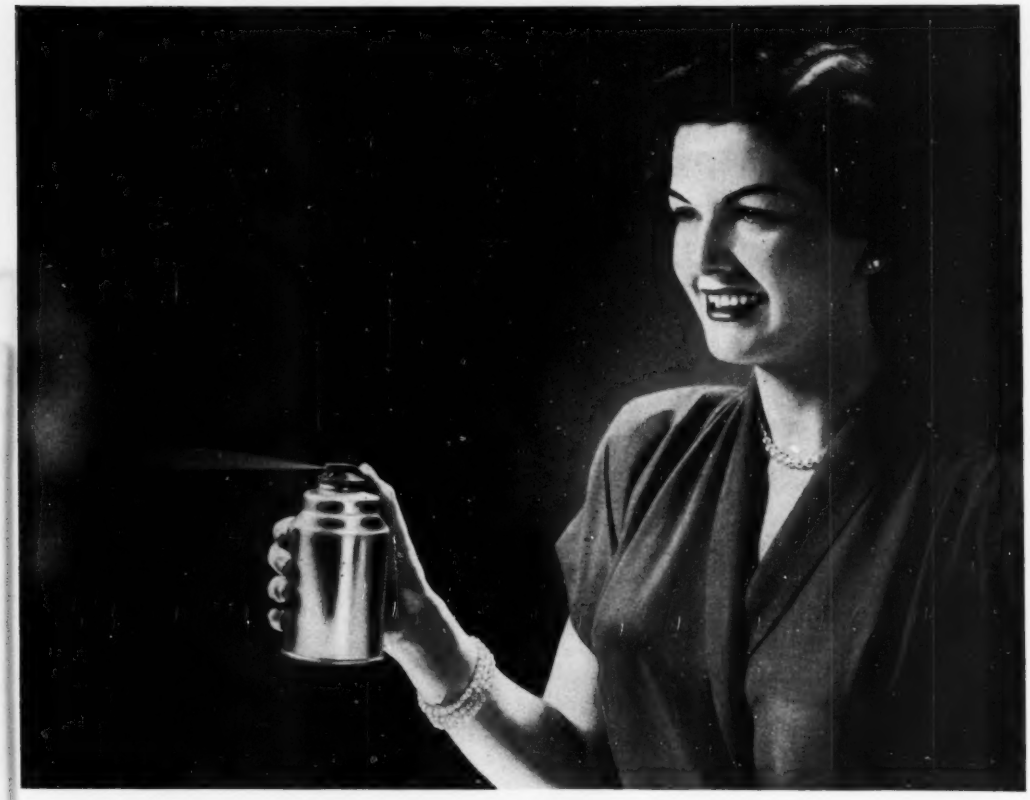
Deltaseal: Reg. U. S. Pat. Off.

Baltimore • Boise • Boston • Brooklyn • Buffalo • Charlotte • Chicago • Cleveland • Denver • Detroit • East Pepperell • Houston • Indianapolis • Jacksonville, Fla. • Kansas City • Los Angeles • Louisville • Memphis • Minneapolis • Mobile • New Orleans • New York City • Norfolk • Oklahoma City • Omaha • Peoria • Phoenix • Pittsburgh • St. Louis • Salt Lake City • Salina • San Francisco • Seattle • Vancouver, Wash. • Wichita • Wilmington, Calif.

Bemis

"America's No. 1 Bag Maker"

CROWN SPRA-TAINER



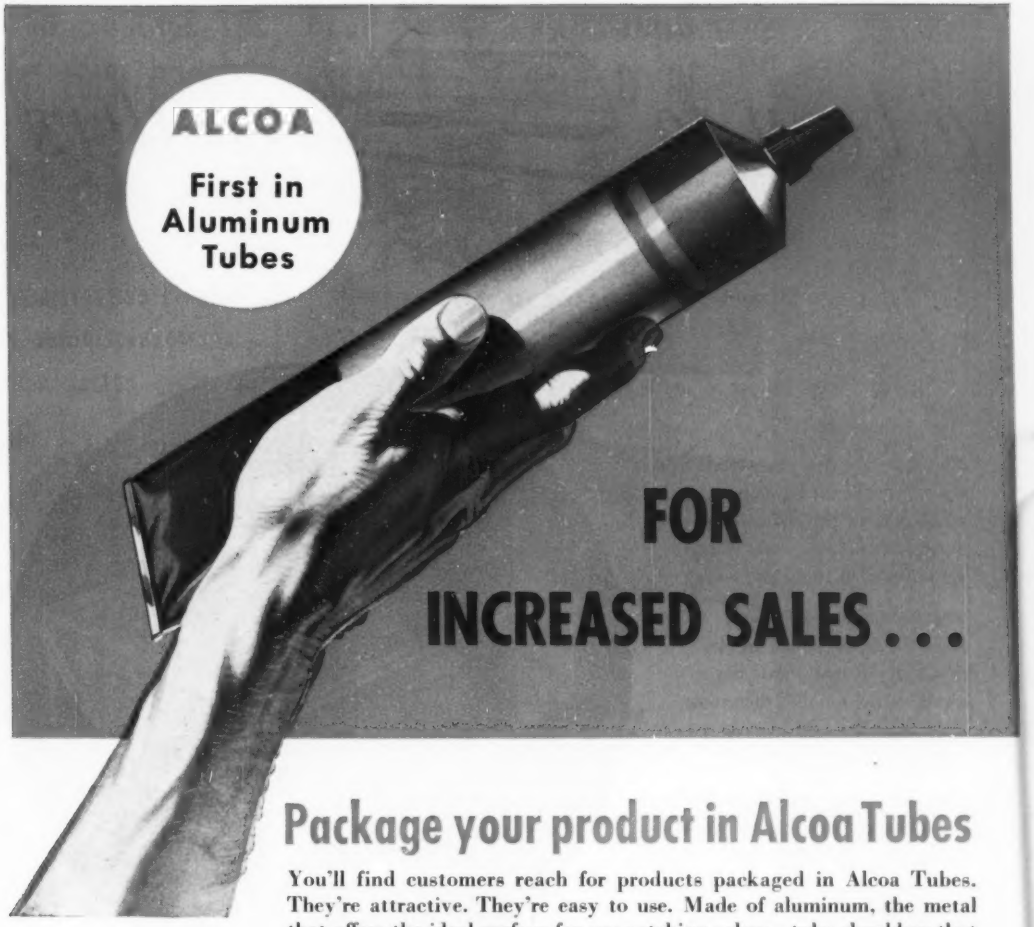
Most Important Can Invention in Years!

For over 50 years, cans have been manufactured in the conventional way of soldering and fabricating. Then Crown invented the can with no-side-seams and no-top-seam. To this was added a special valve—and Spra-tainer was born, the first can to spray out the contents under gas pressure. Now being used for Whipped Cream, Insecticides, Air-Conditioners, Perfumes, Plastic Sprays. Just press the top—and contents sprays out. How about *your* product —wouldn't it sell better in a Spra-tainer? Ask to have a Crown sales representative call.

One of America's Largest Can Manufacturers

CROWN CAN

PLANTS AT PHILADELPHIA, CHICAGO, ORLANDO • BRANCH OFFICES: NEW YORK, BALTIMORE, PITTSBURGH, ST. LOUIS • *Division of Crown Cork & Seal Co.*



Package your product in Alcoa Tubes

You'll find customers reach for products packaged in Alcoa Tubes. They're attractive. They're easy to use. Made of aluminum, the metal that offers the ideal surface for eye-catching colors—tube shoulders that stay bright. In the larger sizes, aluminum tubes are the most economical you can buy.

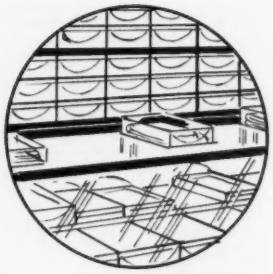
Want more information? Let us send you a copy of "Packaging in Alcoa Aluminum Tubes", our technical booklet covering packaging problems on a wide variety of products. Describes filling and closing operations—weights and capacities of tubes, etc. It's free.

Write

ALUMINUM COMPANY OF AMERICA
1751A Gulf Building • Pittsburgh 19, Pennsylvania

Here are some of the industrial products now packaged in Alcoa Aluminum Tubes:

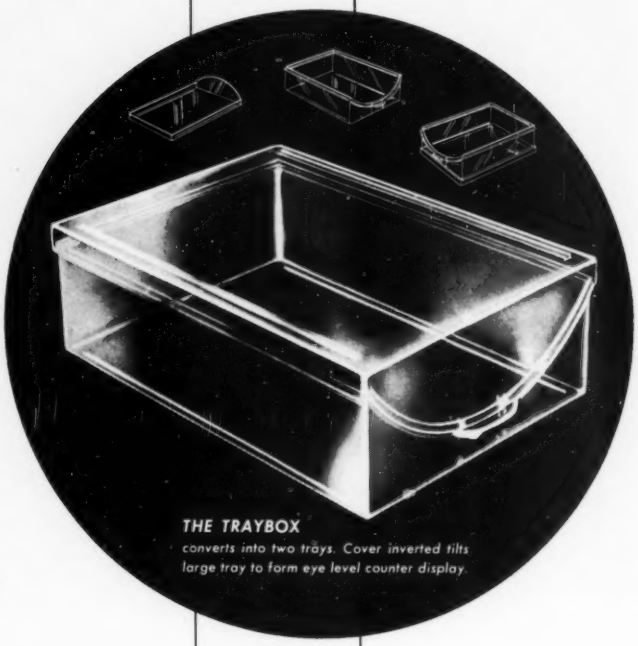
Automotive
Body Cleaner
Buffing Compound
Caulking Compound
Cold Solder
Gasket Cement
Gear Lubricant
Glazing Putty
Hand Cleaner
Ink
Liquid Hide Glue
Marine Glue
Outboard Motor Lubricant
Paint Pigments
Polishing Compound
Rubber Cement
Silicone Compound
Spot Putty
Trim Cement
Weather Strip Cement

a boon to  *retailers*

Ever since the first ready-made shirt was offered across a counter, retailers faced the problem of *how to keep merchandise clean, yet in full view of the customer.*

The Visual Sales Company, Hackensack, N. J. had an idea that a transparent plastic box would do the job. But then came the problem of *how to make it — at a price that made sense.*

Thanks to exceptional engineering and molding facilities, plus extensive merchandising experience, Columbia developed and produced the sensational "TRAYBOX" illustrated here — a rigid, transparent display box for shirts, lingerie, socks and similar items. The "TRAYBOX" comes apart easily to make handy trays for showing merchandise to customers.



THE TRAYBOX
converts into two trays. Cover inverted tilts large tray to form eye level counter display.

another packaging success by

An original packaging idea in plastics can boost the sale of your products. Turn to the company with both the facilities and the merchandising "know-how" to develop it . . . COLUMBIA PROTEKTOSITE.

Columbia

COLUMBIA PROTEKTOSITE COMPANY, INC., CARLSTADT, NEW JERSEY
New York Showrooms: Empire State Building

YOU ENHANCE THE "BEST SELLER" POTENTIALS OF YOUR PRODUCT WHEN YOU PACKAGE IT IN

WIRZ Tubes

clean-attractive-strong-safe self-dispenser for creams, pastes, greases, powders, liquids



- Aluminum Tubes
- Tin Tubes
- Tin-coated Lead Tubes
- Lead Tubes
- Appli-Tubes (Reg. U. S. Pat. Off.)
- Mono-Pak Tubes (Reg. U. S. Pat. Off.)
- Lacquer & Wax Linings
- Applicator Pipes
- Applicator Tips
- Household Can Spouts
- Soft Metal Tubing
- Specialty Metal and Plastic Decorating
- Custom Molding — Compression-Injection

Just as the sturdy, uniform walls of Wirz Collapsible Tubes protect your product down to the last bit, so the bright long-lasting colors of these attractive tubes carry your sales message to your consumers with all its original force. These Wirz characteristics step up the sales potential of your products.

Wirz Tubes are kept to these high quality standards by continuing tests under more severe strains than your product is ever likely to meet in every-day use.

If you have a packaging problem on a new product, or would like to increase the sales potential of an established product, let us discuss it with you. Call or write our nearest representative. He will gladly make recommendations. No obligation, of course.

Send for our new Tube booklet #50B.

ESTABLISHED 1926
A. H. WIRZ Inc.

Fourth & Cole Sts., CHESTER, PA.

EXPORT DIVISION
755 Drexel Bldg.
Philadelphia 6, Pa.

NEW YORK 17, N. Y.
50 E. 42nd St.

CHICAGO 4, ILL.
80 E. Jackson Blvd.

MEMPHIS 2, TENN.
Wurzburg Bros.

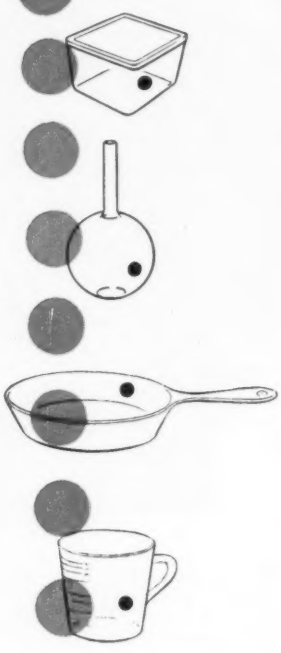
LOS ANGELES 14, CALIF.
1709 W. 8th St.

HAVANA, CUBA
Roberto Ortiz Planos
Roberto Ortiz Hector



Kum-Kleen Labels packaged on 'conveyer belts'

give you production-line labeling speed



UNLIKE ORDINARY LABELS, pressure-sensitive Kum-Kleen Labels are mounted on 'conveyer-belt' rolls which feed through Kum-Kleen dispensers. Individual labels are automatically delivered to the hand of the operator, ready for instant application without moistening. Kum-Kleen eliminates all waste time and motion as well as sticky fingers and soiled packages. Compare this with the snail-like pace of handling and moistening loose labels.

New electric dispenser quickly pays for itself. For high speed production, the compact, low-cost Kum-Kleen Electric Label Dispenser fits into any packaging operation and can be operated by unskilled help. Many users tell us their remarkable time and labor savings pay the cost of the dispenser *and* the labels.

Speed plus 'stick-to-it-iveness.' Once applied, Kum-Kleen pressure-sensitive Labels stick permanently to all types of packages—even such hard-to-label surfaces as cellophane, pliofilm, polyethylene, glass, metal, plastics, varnished woods, etc.

Kum-Kleen Labels never pop or curl despite humidity and temperature extremes. Use Kum-Kleen Labels—produced to your exact size, shape, color and printed specifications—to dramatize *your* package.

An inquiry on your letterhead brings you complete Kum-Kleen information and samples by return mail.

Kum-Kleen

AVERY ADHESIVE LABEL CORPORATION

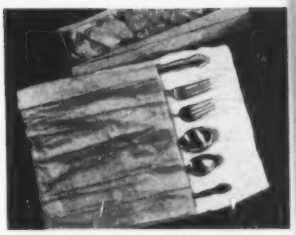
Monrovia, California

NEW YORK · PHILADELPHIA · DETROIT · CHICAGO · CLEVELAND · AND ALL PRINCIPAL CITIES

Kimpak Float Packaging*



ALUMINUM COOKING UTENSILS
Vita Craft Corporation, Kansas City



Individual Table Service—in pocket envelope lined with KIMPAK.
Photo courtesy International Silver Company.



Electric Waffle Iron
Photo courtesy General Electric Company.

Cuts shipping costs— reduces damage in transit!

For shipping anything from perishable foods to finely finished utensils and appliances, your best assurance of complete protection is KIMPAK* creped wadding. Strong, yet soft—flexible, yet smooth—KIMPAK provides the perfect cushion to guard against finish damage.

Although a top quality packaging material, KIMPAK is economical to use. It's neat, easy to apply—saves time in the shipping room. It's clean and pleasant to handle. And KIMPAK is feather-light to reduce the size and weight of shipping packages. No other cushioning material provides comparable safety with so little bulk or weight!

Moreover, the smart-looking, eye-appealing neatness of a KIMPAK-wrapped product cannot be surpassed. Many of America's finest products go to market protected with KIMPAK—because of its attractive appearance. So try "Float Packaging" at your first opportunity. There is a specification to meet every requirement of the four basic methods of Interior Packaging: Flotation, Blocking and Bracing, Surface Protection, and Absorbent Packaging.

FREE BOOKLET!

Kimberly-Clark Corporation
Neenah, Wisconsin

Please send me free, the illustrated KIMPAK packaging guide.

MP-150

Name .....

Firm .....

Address .....

City ..... *Zone* ..... *State* .....

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES

A PRODUCT OF Kimberly Clark RESEARCH

CREPED WADDING

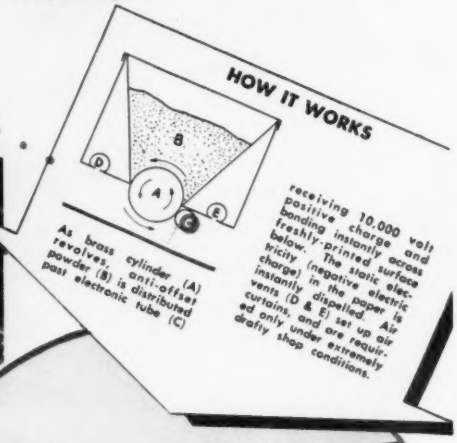
*T. M. REG. U. S. PAT. OFF.

GO! "NON-STOP" PRINTING.

OXY-DRY means...

- "Good-Bye" OFFSET WORRIES
- Press Operation to Full Delivery Capacity





KEEP RUNNING

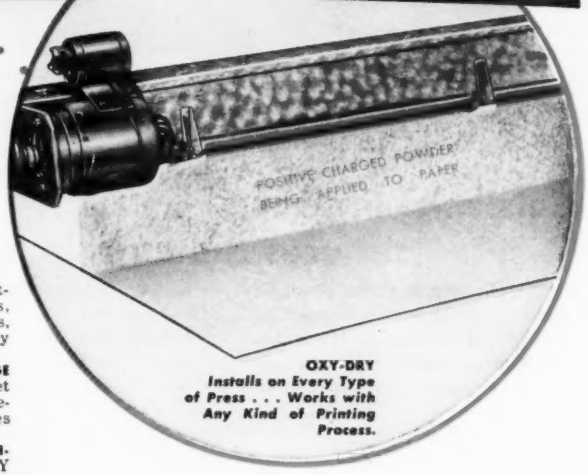
TO FULL CAPACITY OF PRESS DELIVERY WITHOUT FEAR OF OFFSET

Stopped presses make no money. OXY-DRY helps keep presses running—makes you more money because (a) Sheets can be stacked to full capacity of press delivery without trace of offset. (b) Quick drying of ink through ozone action speeds handling—helps keep delivery clear. (c) One powder-filling of unit usually lasts 24 hours running time. No press stoppage for frequent refills.

NO OTHER SPRAYER

CAN OFFER ALL THESE ADVANTAGES

1. **UNIFORM OFFSET PREVENTION** . . . Powder bonds instantly across printed surface, acting as uniform spacer between sheets.
2. **STATIC ELIMINATION** . . . assures easy flow of sheets. No sticking or jamming of paper.
3. **DRYING SPEEDED** . . . Non-toxic ozone created by electrical discharge from high-voltage tube speeds oxidation of ink—quickens drying.
4. **FASTER HANDLING** . . . Removal of all offset danger enables printer to stack sheets, handle full skid loads, at full press delivery capacity.
5. **SAVES LABOR, STORAGE** . . . OXY-DRY offset prevention speeds deliverv time, saves labor, stops waste.
6. **HEALTHFUL, ECONOMICAL** . . . OXY-DRY offset powder—a mixture of edible starch powders — is a fully-endorsed Health factor. No dust hazard. No exhaust system required. Small amt. of powder needed.



OXY-DRY
Installs on Every Type of Press . . . Works with Any Kind of Printing Process.

HUNDREDS OF PLANTS, Using Every Kind of Printing Press and Process, Are Now Successfully Equipped with OXY-DRY SPRAYERS.
We will gladly supply you names of printers in your region using OXY-DRY SPRAYERS with the type of printing press or process in which you are interested.

For further information write Dept. MP.

OXY-DRY SPRAYER CORPORATION
320 So. Marshfield Ave., Chicago 12, Ill.

OXY-DRY

. . . allows stacking of sheets to full press delivery capacity without trace of offset.



Packages Illustrated, Milprint Rotogravure
Printed Cellophane Carton Overwraps

these Milprint packages invite themselves to dinner!

Take a good, long look at your packages, with this in mind:

—38% of all food is bought on impulse
—75% of the shoppers buy unplanned items.

That ought to prove that food packages must be loaded with irresistible appeal that makes shoppers stop, look and buy when they didn't intend to.

If your product is food or textiles or anything else that's exposed to impulse buying, you need an eye arresting package created by Milprint's expert designers. They know how to fashion a package that invites itself into the customer's home.

Call your local Milprint man or write today for suggestions to improve your package. No obligation.



"follow thru" service

This lithographed display is an example of Milprint's "Follow Through" service to help you sell more merchandise. We'll create and print your displays, booklets, broadsides and all types of printed promotional material.

This insert printed by Milprint, Inc.

Milprint INC
PACKAGING MATERIALS
LITHOGRAPHY & PRINTING
GENERAL OFFICES MILWAUKEE WISCONSIN
SALES OFFICES IN ALL PRINCIPAL CITIES

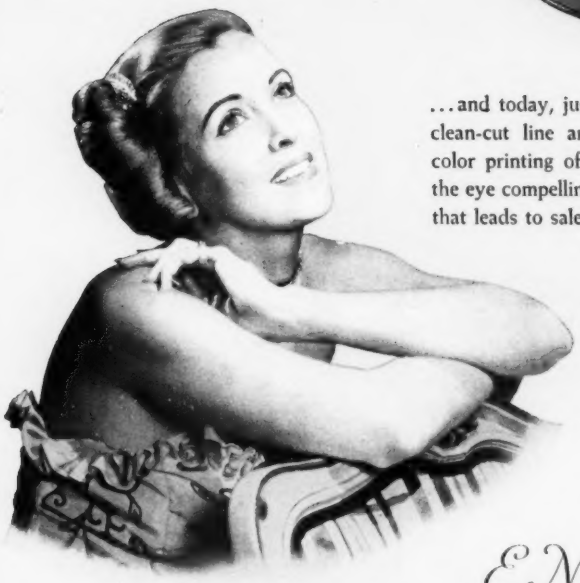


Ever since the Gibson Girl



...quality products have *sold* in fine Rowell set-up boxes.





...and today, just as 50 years ago, the fresh, clean-cut line and expert craftsmanship and color printing of a Rowell container provides the eye compelling, desire creating combination that leads to sales and repeat sales.

E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N.Y.

Announcing a new adhesive

for faster, cleaner labeling!



All these and many other types of bottles may be securely labeled with Swift's Evertite. Evertite resists temperature and humidity extremes. It works well on cold, wet, stippled, and even on slightly greasy surfaces.

Swift's Evertite
BOTTLE LABEL ADHESIVE

Here's great news! Swift & Company announces **EVERTITE**—*a new and different adhesive for labeling glass bottles and jars.*

We think your tests will show *Evertite* to be the cleanest-machining, most economical adhesive available. Here's why:

Swift's *Evertite* spreads smoothly and evenly permitting the application of a very thin film. Machine should be adjusted so that the thinnest possible continuous film is applied. It is unusually short fibered and breaks clean without feathering or stringing.

Strong suction tack—excellent label pickup

Try *Evertite* for Ermold, O & J, World, Oslund and Liquid Carbonic machines —Swift's #2602* for New Jersey Pony Labelrite and Pneumatic Machines or hand brushing.

Test Evertite today! Mail this coupon now for a trial drum of this remarkable new Swift adhesive.

Evertite and the more fluid type (#2602) have scored well in test runs according to our reports received from the field.

PHILADELPHIA, PA. • "Saw Evertite running in an O&J machine today. The operators were very well pleased with it. It was running very clean, the labels were nice and tight (neckband and body label), and the mileage was superb. They are going to continue tests and will keep you posted."

LOS ANGELES • "This company has tested #2602 on their Pony Labelrite machines labeling primarily alcohol bottles. Their previous adhesive did not give them good adhesion on the corners due to the contour of the bottle. #2602 is doing a remarkable job for them."

ATLANTA • "Local manufacturer just ran test with Evertite on their World Straightaway Labeling Machine. They use a rather tough, springy label on one gallon glass jugs. They ran Evertite straight and it performed an excellent labeling job."

Swift & Company
Adhesive Products Department
CHICAGO 9, ILLINOIS

** More fluid than Evertite*

Swift & Company, Adhesive Products Department, Chicago 9, Illinois

Gentlemen: Please send us a 10-gallon trial drum of the following, invoiced at the large drum price of 12¢ per lb. FOB your nearest adhesive plant (13¢ FOB San Francisco, North Portland, Los Angeles).

☐ Swift's *Evertite* for Ermold, World, O&J, Oslund and Liquid Carbonic Machines.
☐ Swift's #2602 for New Jersey Pony Labelrite, Pneumatic Machines and hand brushing.

We understand this adhesive may be returned at your expense if we are not completely satisfied with our tests. *(This offer expires March 5, 1950)*

Firm _____

Address _____

City & State _____

Signed by _____

Salesmen • ON THE SHELF!



• • • variety of sizes



• • • economical and practical



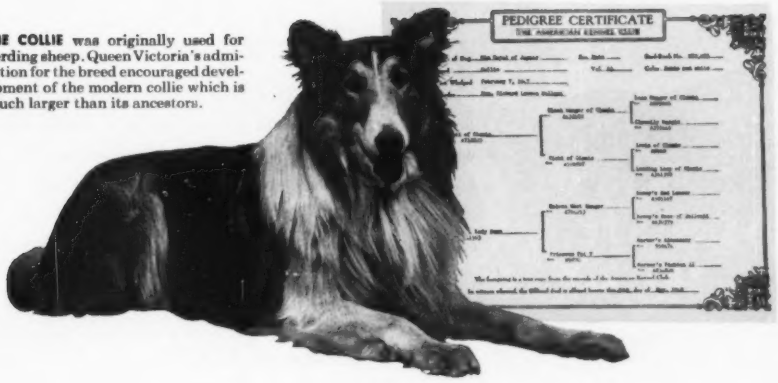
• • • beauty of design and color



Quality OLIVE CAN COMPANY Service

MANUFACTURERS • DESIGNERS
PLAIN • DECORATED • LITHOGRAPHED
METAL CONTAINERS

450 N. LEAVITT ST., CHICAGO 12, ILLINOIS



THE COLLIE was originally used for herding sheep. Queen Victoria's admiration for the breed encouraged development of the modern collie which is much larger than its ancestors.

Take No Chances—

Buy Boxes By Their Pedigree



EXPERIENCED BUYERS know there is *extra* assurance in buying boxes with a pedigree.

That's why P. Ballantine & Sons rely on Union boxes to carry great quantities of their famous beer and ale from brewery to dealers' shelves.

Many other makers of national brand merchandise know the Union shield on a box means it is made by the leader in Kraft packaging, operating five of the world's largest paper machines in a completely integrated pulp-to-container plant. Linked with this great plant are tremendous forest resources and four modern box plants—and one management with one high standard of quality control supervises everything from timber to finished box.

That is why makers of many national brand products know that Union corrugated boxes give *extra* assurance of consistent quality, consistent service and fair price.

TRADE MARK UNION

Dependable Packaging Since 1872

UNION Corrugated Containers

UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

***Corrugated Container Plants:* SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY**

Resolved:

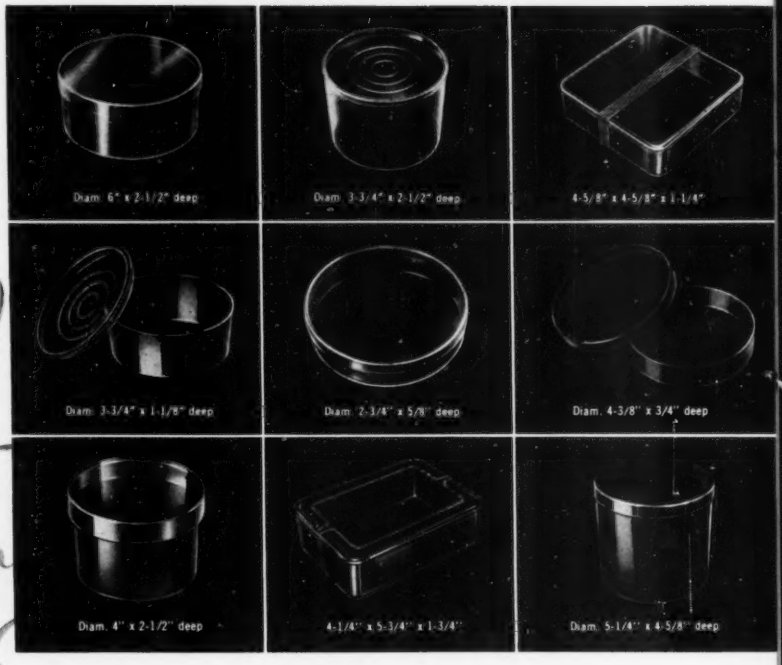
for a Gleaming NEW YEAR

THE sparkling appeal of crystal-clear Tri-State Rigid Plastic Boxes will make your sales picture brighter in the year to come! Whether you manufacture food—sweets—staples—fashion items—luxury articles—or perishables of any kind, packaging in Rigid Plastic Boxes will provide the appeal that builds sales for you. And handsome, reusable bonus boxes will carry resales to a new high, too.

Add to greater unit volume, the low unit cost for packaging operations. Our stock shapes and sizes are now saving packaging costs for a number of manufacturers. Or we'll mold to fit your own package specifications.

Put your product in a gleaming individual Plastic showcase now. Provide sparkling freshness, complete protection, and new point-of-sale incentive. Write or call any of our offices for full information.

Package in TRI-STATE rigid plastic



The best Rigid Plastic Boxes are Injection Molded by Tri-State.

TRI-STATE PLASTIC MOLDING CO.

HENDERSON, KENTUCKY

New York Office: 12 E. 41st Street—Murray Hill 3-6572

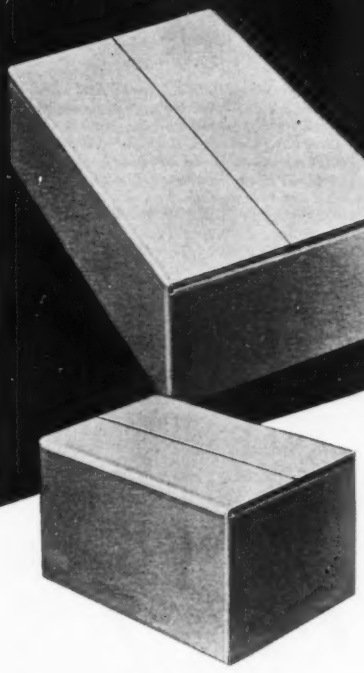
Chicago: 176 W. Adams Street

Customer Goodwill

IS MONEY IN THE BANK

Save it BY PROTECTING YOUR PRODUCT FROM DAMAGE IN TRANSIT WITH

Gaylord Boxes

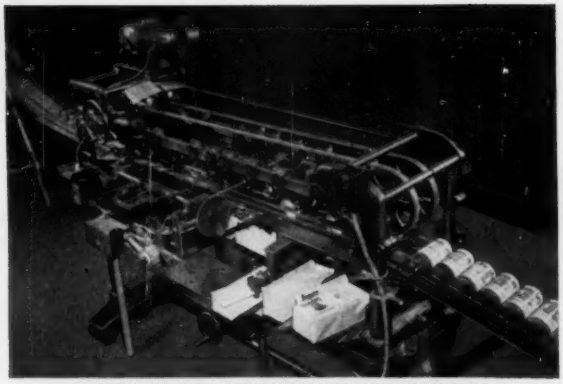


DAMAGED merchandise and its accompanying irritations often result in loss of customer goodwill. You owe it to yourself to take every precaution against this loss. You can do so by permitting Gaylord's Engineering and Research Department to analyze your present container —if it's right, they'll tell you; if it isn't, recommendations will be made. No obligation, of course—just call the Gaylord office nearest you.

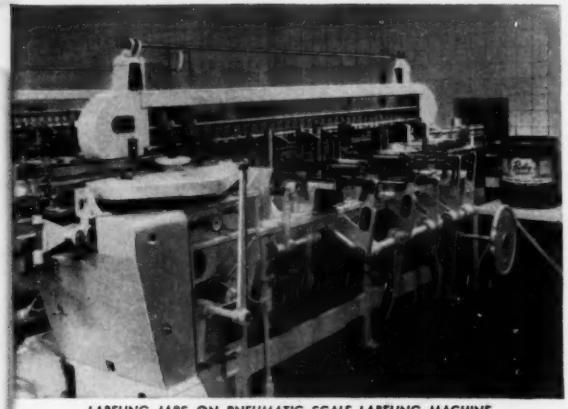
GAYLORD CONTAINER CORPORATION General Offices: **ST. LOUIS**

CORRUGATED AND SOLID FIBRE BOXES ●
FOLDING CARTONS ●
KRAFT GROCERY BAGS AND SACKS ●
KRAFT PAPER AND SPECIALTIES ●

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Jacksonville Columbus • Fort Worth • Tampa • Cincinnati • Dallas • Des Moines • Oklahoma City Greenville • Portland • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa Milwaukee • Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro Sumter • Jackson • Miami • Omaha • Mobile • Philadelphia • Little Rock • Charlotte



LABELING CANS ON STANDARD KNAPP LABELING MACHINE



LABELING JARS ON PNEUMATIC SCALE LABELING MACHINE

Free

CONSULTING SERVICE ON LABELING ADHESIVES



There's a laboratory-developed, tested and controlled PAISLEY scientifically designed Adhesive for every fabricating, manufacturing, product labeling and sealing operation. Buy your Adhesives the scientific way. Send for an Adhesive Operation Data Sheet. Fill in and return it to our laboratory for analysis and recommendations. Get the ONE best Adhesive for the SPECIFIC operation. Also send for new Bottle Labeling Technical Service Bulletin No. 21. *Write today. There's no obligation.*

YOUR OPERATION DETERMINES THE FORMULA

WHEN YOU USE . .

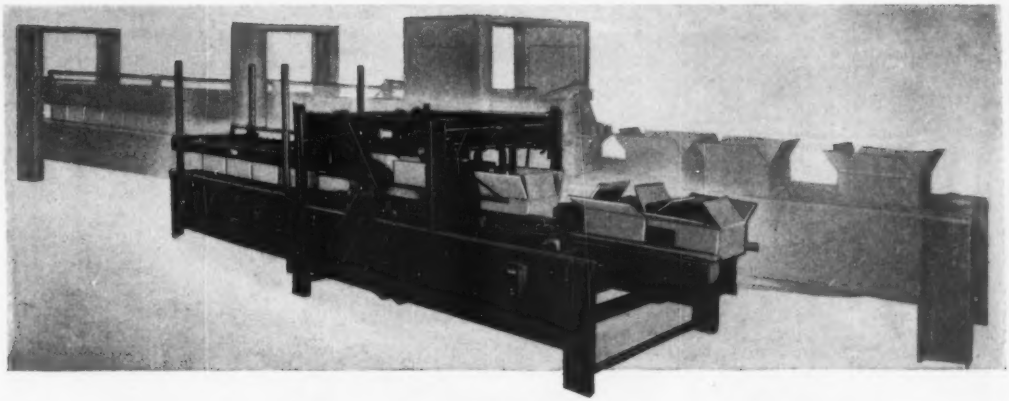
WHATEVER your adhesive operation "Put it up to Paisley!" Regardless of (1) the type or speed of machine or hand operation; (2) kind of materials to be bonded; (3) type of container surface to be sealed or labeled, or other consideration; you can depend upon our laboratories to develop the *one best* Adhesive for the job. Determining the formula and maintaining absolute quality controls in each succeeding shipment, will not cost you one penny more. We invite you to use this *free* Paisley Scientific Adhesive Service. Just send for our Adhesive Operation Data Sheet. It's a very convenient form which you fill in and return. Upon receipt, our skilled adhesive engineers will quickly study your problem and make specific recommendations. If you want *better results* in your gluing or packaging operations, don't wait . . write for your Data Sheet TODAY!

Paisley SCIENTIFIC ADHESIVE SERVICE

PAISLEY PRODUCTS INCORPORATED

1770 CANALPORT AVENUE, CHICAGO 16, ILL. PHONE CANAL 2219
630 WEST 51st STREET, NEW YORK 19, N.Y. PHONE COLUMBUS 5-2860

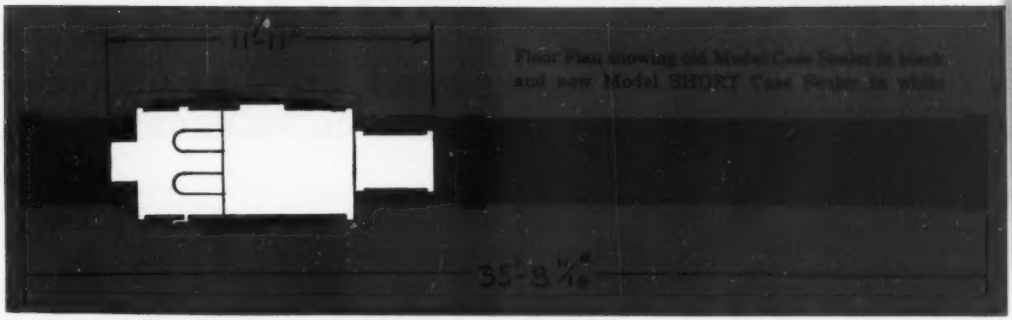
Manufacturers of Glues · Pastes · Resin Adhesives · Cements and related Chemical Products



Save 2/3 on Floor Space

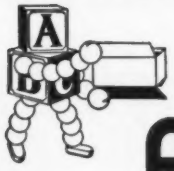
Replace Obsolete Equipment with

A-B-C Automatic SHORT Case Sealer



Floor Plan showing old Model Case Sealer in black and new Model SHORT Case Sealer in white

Remember... NEW BUILDINGS COST MONEY!



Write, Wire or Phone NOW for Complete Information

A-B-C PACKAGING MACHINE CORP.

OTHER A-B-C PRODUCTS: "Seal-All" Semi-Automatic Case Sealer — Automatic Side Case Sealer — Semi-Automatic Bottom Sealer — Hand Gluer — Automatic Case Unloader and Unscrambler.



PLANNED FOR *Utility*

ON THE SHELF...IN THE PACKAGE ...TO ENHANCE THE PRODUCT

CLEVELAND CONTAINERS have won world-wide renown for their adaptabilty and fine performance in packaging products of endless variety.

They possess unlimited design potentialities . . . ever with the advantages of strength at minimum weight . . . fast and convenient plant production . . . at low unit cost to the purchaser.

The following is a partial list of Utility Products now available in Cleveland Containers:

Water Putty . . . Grease Soap
Moth Flakes . . . Auto Soap
Stain Remover . . . Weed Killer
Tinning Compound . . . Seeds
D.D.T. Pump Gun . . . Tacks
Plaster Sticks . . . Rug Cleaner
Venetian Blind Cleaner . . .
Water Softener . . . Drain Cleaner
Caulking Compounds . . . Plant Food
Ant Powder . . . Tool Containers
Paint Spray Cans . . . Friction Tape
Household Deodorant . . . Ammunition
Auto Radiator Flush . . .
Garden Chemical Dust . . .
Buffing Compound . . . Scotch Tape
Auto Cleaner Paste . . .
Wood Plastics . . . Chemical Cleaners
Disinfectant Powder . . . Scouring Powders
Fishing Rod Cases . . . Photo Developer
Mechanics Hand Soap . . .
Fire Extinguisher Charge . . .
Plant Chemicals . . . Flea Powder

* * *

Send us one of YOUR products and receive our suggestions on improving its packaging. Possibly we can be of real service.

The CLEVELAND CONTAINER Co.
6201 BARBERTON AVE. CLEVELAND 2, OHIO
• All-Fibre Cans • Combination Metal and Paper Cans
• Spirally Wound Tubes and Cores for all Purposes
• Plastic and Combination Paper and Plastic Items
★ ★ ★
PRODUCTION PLANTS also at Plymouth, Wisc. Ogdensburg, N.Y., Chicago, Ill., Detroit, Mich., Jamesburg, N.J.
PLASTICS DIVISION at Plymouth, Wisc. • ABRASIVE DIVISION at Cleveland, Ohio
SALES OFFICES Room 5637, Grand Central Terminal Building, New York 17, N.Y., also 647 Main St., Hartford, Conn.
CANADIAN PLANT The Cleveland Container Canada, Ltd., Prescott, Ontario Sales Offices in Toronto and Montreal

No ERMOLD AUTOMATIC MULTIPLE LABELER need be obsolete until it's worn out

In the past three years new improvements have been developed for Ermold Automatic Multiple Labelers. These improvements have been designed for two important reasons—(1) to insure more attractive, more accurate labeling (2) to reduce overall labeling costs.

All of these improvements are part and parcel of the new Improved Ermold Automatic Multiple Labeler. They can be incorporated in most older models.

Your Ermold representative can readily tell you whether it is more practical to *improve* your present equipment or *replace* it.

TYPICAL ERMOLD IMPROVEMENTS



FOR CLEAN, SPARKLING LABELING

Adjustable Glue Transfer Roller Cam — insures accurate timing during application of glue to label pickers...eliminates excess glue on pickers.

Full Wrap-Around Foil Wiping—Powered brush wipers give a positive sealed overlap on neck foil... clean and free from excess glue.



FOR NEAT, STRAIGHT LABELING

New Pusher Forks — designed to hold the bottle more firmly while label is being pressed against the bottle.

New Pusher Guide Tracks — prevent tilting of bottles while labels are being applied...also insure accuracy of label placement, particularly neck labels.

Sight, Gravity Feed Oilers—keep pusher chains lubricated at all times, preventing wear and consequent looseness while label is being applied.



FOR ECONOMICAL OPERATION AND MAINTENANCE

Mechanical Variable Speed Drive—allows instant changes in machine speeds to match changes in speed of line.

Push Button Stop and Start Control System — provides quicker stopping and starting than a mechanical clutch...ideal for connection to other remote control switches located at stations remote from labeler.

New Timer Wheel — cuts minutes from time needed for changeover from one bottle size to another.



ERMOLD LABELERS

EDWARD ERMOLD COMPANY
652 HUDSON ST., NEW YORK 14, N. Y.
FOUNDED 1880 INCORPORATED 1911

70 Years of Labeling Leadership

LET AN ERMOLD REPRESENTATIVE analyze your particular situation. He'll tell you whether it is more profitable for you to purchase a new Improved Ermold Labeler or to incorporate some or all of the improvements in your present Ermolds. Just fill in the coupon and mail it today. This analysis involves no obligation.

New!
ERMOLD
AUTOMATIC
UNPACKER
Have You Seen It?

EDWARD ERMOLD COMPANY, 652 Hudson Street, New York 14, N. Y.

Gentlemen: I am interested in the technical improvements available for Ermold Labelers. Please have your representative make an analysis of our equipment without obligation.

NAME_____ POSITION_____

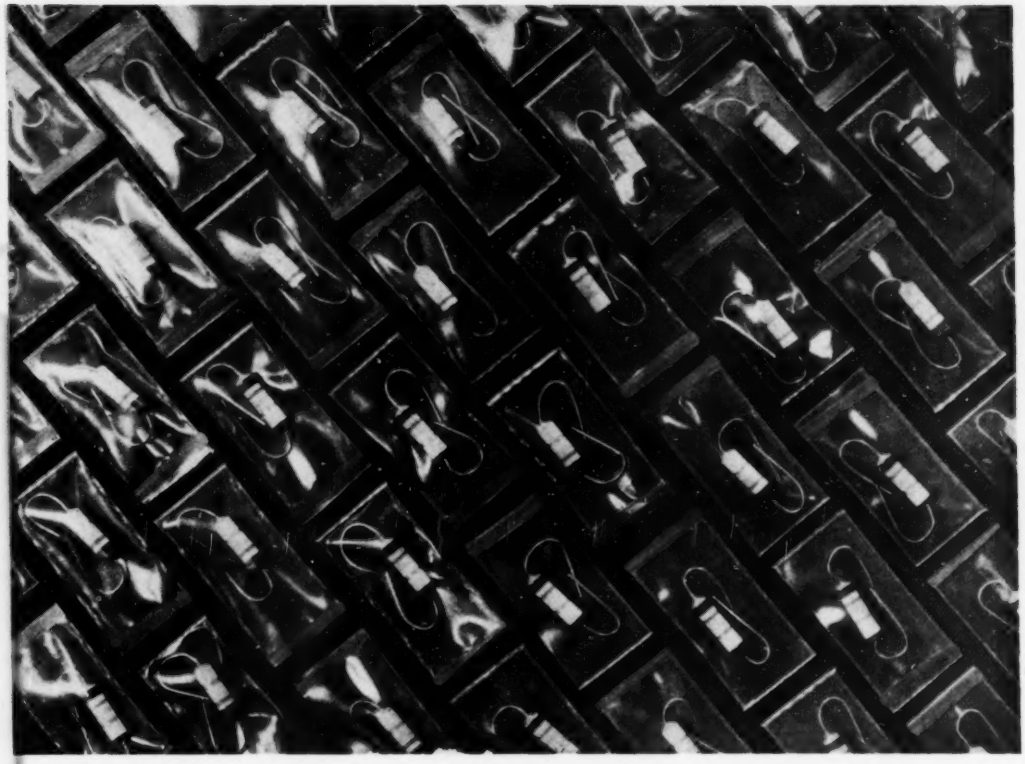
COMPANY_____

ADDRESS_____

British Ministry of Supply Specify

'ALKATHENE' *Polyethylene Film*

for Packaging Carbon Resistors



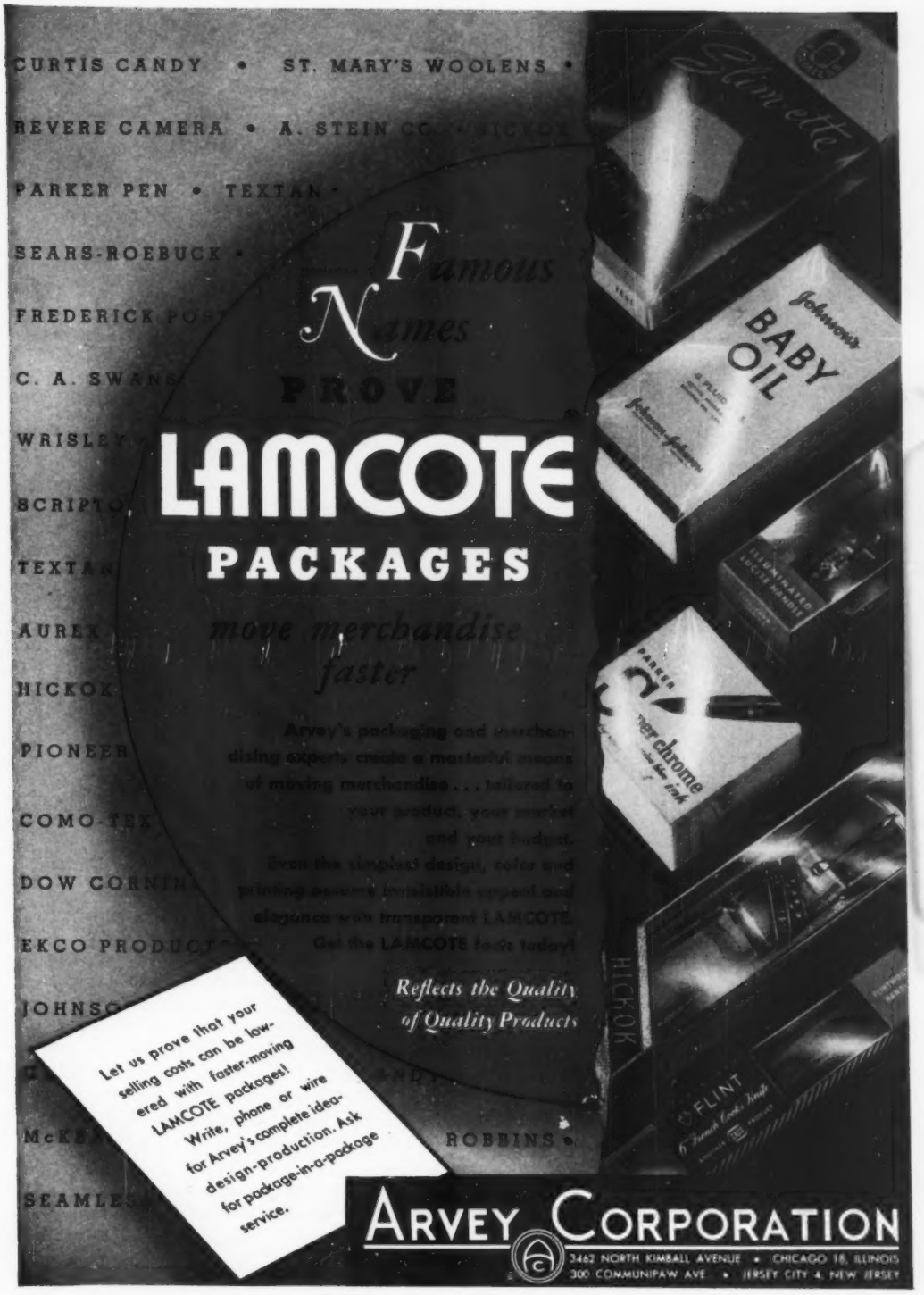
"ALKATHENE" film has been chosen to protect carbon resistors supplied by the Erie Resistor Co., Ltd., London, in accordance with a British Government specification. "Alkathene" film replaces a complex wax dipped laminate. It provides:

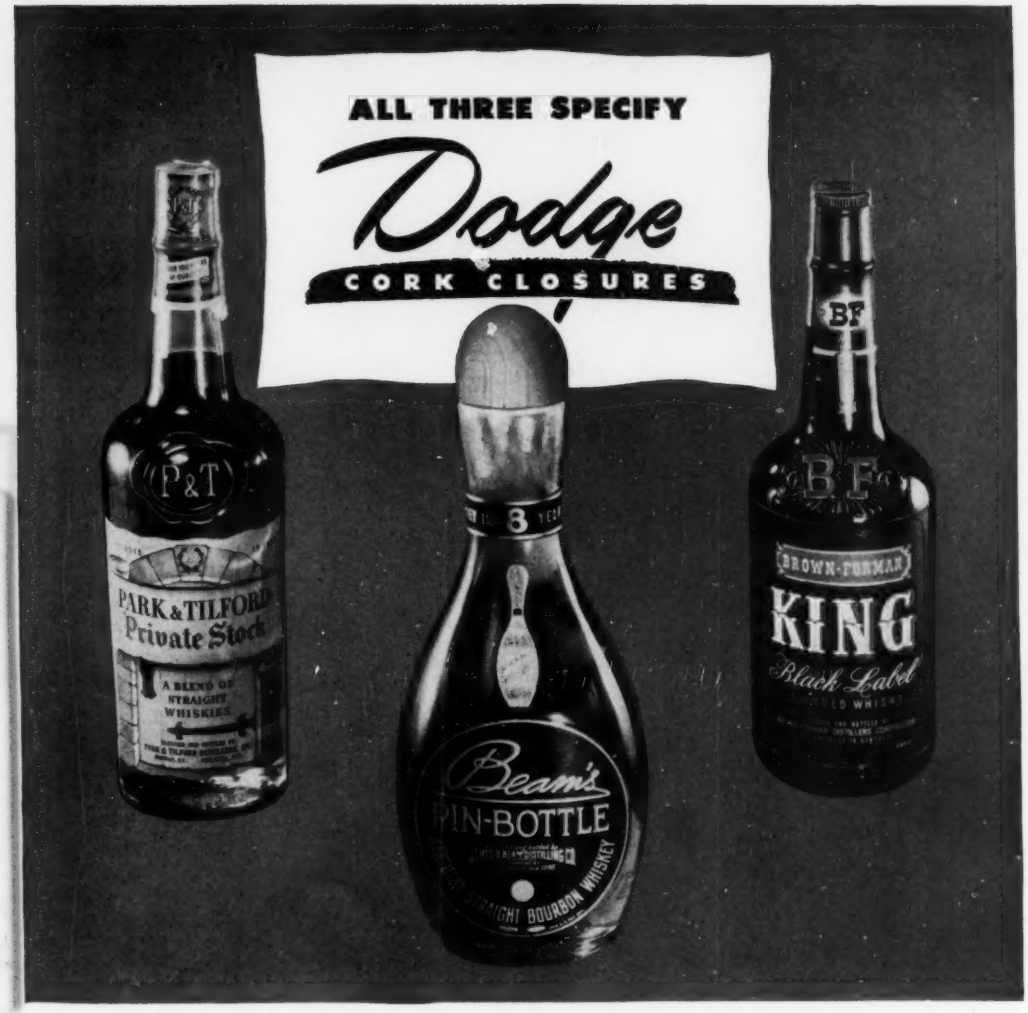
1. A lighter weight package
2. A reduction in materials and labour costs
3. Superior performance
4. Transparency, enabling condition to be observed.

The film envelopes were manufactured by Paper Goods Manufacturing Co. Ltd.

IMPERIAL CHEMICAL INDUSTRIES LTD. ENGLAND

ICI


CURTIS CANDY • ST. MARY'S WOOLENS •
REVERE CAMERA • A. STEIN CO.
PARKER PEN • TEXTAN
SEARS-ROEBUCK
FREDERICK
C. A. SWAN
WRISLEY
SCRIPTO
TEXTAN
AUREX
HICKOK
PIONEER
COMO-TEX
DOW CORNIN
EKCO PRODUCT
JOHNSO
McKE
SEAMLES
ROBBINS
Famous Names PROVE
LAMCOTE
PACKAGES
move merchandise faster
Arvey's packaging and merchandising experts create a masterful means of moving merchandise . . . tailored to your product, your market and your budget.
Even the simplest design, color and printing process is available expand and elegance with transparent LAMCOTE.
Get the LAMCOTE facts today!
Reflects the Quality of Quality Products
Let us prove that your selling costs can be lowered with faster-moving LAMCOTE packages! Write, phone or wire for Arvey's complete idea-design-production, Ask for package-in-a-package service.
Johnson's BABY OIL
HICKOK
FLINT
ARVEY CORPORATION
3462 NORTH KIMBALL AVENUE • CHICAGO 18, ILLINOIS
300 COMMUNIPAW AVE • JERSEY CITY 4, NEW JERSEY





James B. Beam, Brown-Forman, Park & Tilford—three names known and respected in their field—each uses air-tight Dodge *Cork* Closures. These leading distillers know the value of that extra punch in packaging—the sales power of a strikingly designed closure in their customer's hand. They know that a closure must be easy to remove and replace—yet faithfully guard the contents. That is why they insist upon Dodge — the cork closure of beauty and utility.

Dodge Milbossed-top corks are made of uniform, high grade natural cork firmly joined to sturdy, cleanly knurled hardwood tops. They are available in standard designs—or personalized with your own name or trademark—in a wide variety of sizes and colors.

Bring your needs in closures to us—we're always glad to be of service.

DODGE CORK COMPANY
INCORPORATED
LANCASTER, PENNSYLVANIA

DODGE CORK CLOSURES — DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS



Good aniline ink is the stock-in-trade of BBD. But we've got something else up our sleeves—bare arms ready to tackle your ink problems . . . and able to solve them, too. The arms belong to your local BBD field man . . . an aniline printing ink specialist who will roll up his sleeves to show you—in your own pressroom—how to use BBD inks to step up printing quality. This "shirt-sleeved" BBD representative is a good man to know. Why not call him in next time you order ink?

Bensing Bros. and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

401 N. Broad Street, Philadelphia 8, Pa.

Associated Manufacturing Plants:
81 Albion St., Wakefield, Mass.
2358 N. Seeley Ave., Chicago 47, Ill.

Distributors:
A. M. Bojanower, Los Angeles 22, Cal.
Manton Brothers, Toronto, Canada

Export Division:
McLaurin-Jones Co., New York 17, N. Y.

Lever Brothers select

VISQUEEN* film

for

LUX · SWAN · RINSO

offer





LEAVE it to Lever Brothers to spot a red-hot selling idea when they see one!

In selecting this all-purpose bag made of VISQUEEN film as a wrap-up premium for their famous products, Lever Brothers were guided by women's growing preference for household items made of this outstanding polyethylene film. Airproof, moistureproof, this durable VISQUEEN film bag keeps foods fresh, is reusable time after time for a wide variety of household purposes.

Perhaps VISQUEEN film can help solve your problem, too. Come to us for close cooperation.

WARNING!

Do Not Confuse VISQUEEN film with Ordinary Polyethylene Film

All polyethylene film is not VISQUEEN. VISQUEEN film is the product of years of experience and research on the part of The Visking Corporation, pioneers in the development of this material. Only VISQUEEN film has the benefit of this rich technical background. Always be sure to specify VISQUEEN film.

VISQUEEN film... a product of The

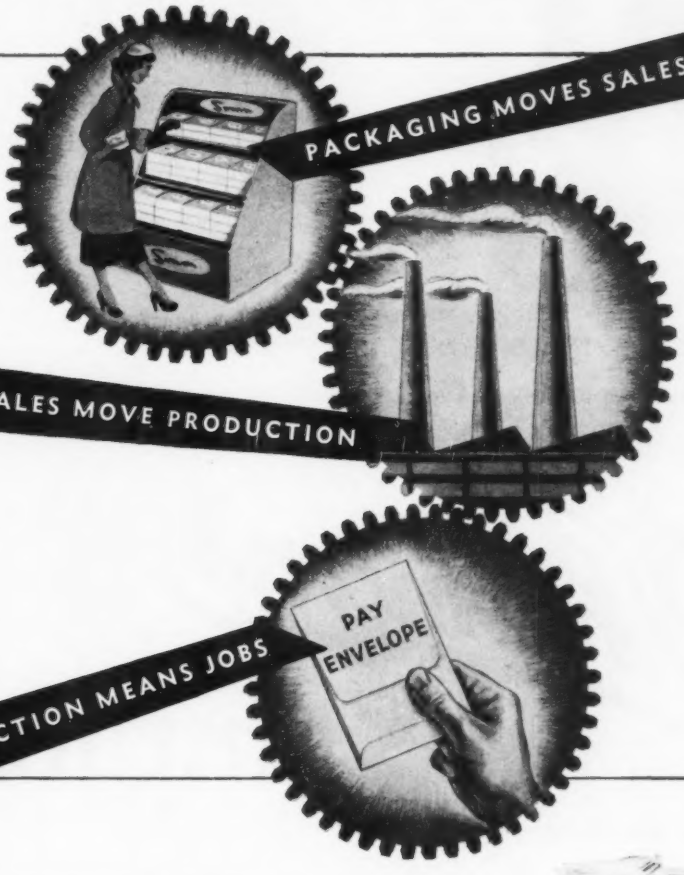
VISKING CORPORATION

PRESTON DIVISION, TERRE HAUTE, INDIANA

The Visking Corporation, Chicago 38, Illinois, manufacturers of Visking** casings, Visqueen* plastic film and Viskon* non-woven fabric. Plants in Chicago, Illinois; Terre Haute, Indiana; North Little Rock, Arkansas. **Reg. U. S. Pat. Off. *Trademark.

You're right!

—packaging is important



***Is your package* geared *for Sales*?**



OLD DOMINION
Box Company, Inc.

Plants located throughout the South

Executive Offices: LYNCHBURG, VA. • *Sales Offices:* CHARLOTTE, N. C.

OLD DOMINION BOX CO.
Charlotte, North Carolina

Please send me illustrated folder on the following types of packages: Set-up Boxes ☐, Folding Boxes ☐, Corrugated Containers ☐, Acetate Boxes ☐, Paper Canisters ☐.

Name_____

Company_____

Address_____



ince inception

over one quarter of a century ago, through good times and bad, through two wars and two depressions, the

Whitman's Sampler

has been lithographed exclusively by

BRETT LITHOGRAPHING CO.

Since 1844, producers of fine color lithography.

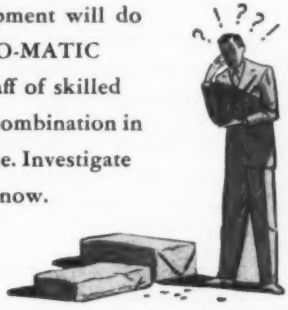
47-07 Pearson Place, Long Island City 1, N. Y.


Whitman's
Sampler
CHOCOLATES & CONFECTIONS
ONE POUND NET
Started in 1842

CAN WE HELP WITH YOUR PACKAGING IN 1950?



To get your business competitive and stay that way this year, production costs should be carefully studied and trimmed wherever possible. Even in packaging, there are ways to turn out a neat product and get it to market more quickly. A reasonable investment in capital equipment will do this. Our line of WRAP-O-MATIC Wrapping Machines and staff of skilled specialists are an unbeatable combination in making packaging profitable. Investigate what they can do for you now.





PAR AIR COMPRESSORS



PAR REFRIGERATION COMPRESSORS



WRAP-O-MATIC CANDY & COOKIE WRAPPING MACHINES

LYNCH CORPORATION

PACKAGING MACHINE DIVISION

TOLEDO, OHIO



MORPAC PAPER PACKAGING MACHINES



MORPAC BUTTER & OLEO PACKAGING MACHINES



GLASS FORMING MACHINES

"PROTECTION is the CORNERSTONE of Packaging"

Says

CHARLES L. BARR

(President, Packaging Institute)



The most attractive package in the world cannot do a good job if it fails to protect. That's why men who help to develop sales-winning packages always stress the importance of product protection.

Check the sales leaders in field after field and you will find well-engineered packages . . . and over and over again, you will find a Riegel paper inside. Many other Riegel papers are designed for flexible packages, for laminates, for outer wraps and for almost every requirement in protective packaging . . . papers that can be relied on for smooth performance on modern high-speed machines.

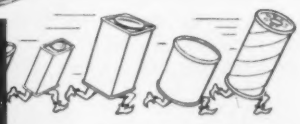
Tell us your needs, and we believe we can offer you a paper that will do your job . . . efficiently and economically.

RIEGEL PAPER CORPORATION
342 Madison Avenue, New York 17, N.Y.

Riegel *Tailor-made Papers for Protective Packaging*



Your Goods move faster in R·C "product-tailored" containers



Oval, oblong, square and round,
Spiral — convolutely wound
For all your needs in package plans
Answer always — R. C. Cans

R. C. FIBRE CANS are popular in so many *different* industries because they combine greater eye and buy-appeal with extra functional advantages. Easier to fill . . . easier to stack, handle and display . . . R. C. Containers are designed to dispense your product more conveniently.

These more practical features grow out of practical experience obtained over a period of 40 years. R. C. Can engineers *know* packaging, and they adapt their experience to the special needs of your product and to your production set-up. That's why R. C. Containers will *move* your product — through the plant and into consumer's hands — faster, more efficiently at *lower unit cost*.

COMPLETE SERVICE . . . ON SCHEDULE DELIVERY From planning and designing your closure and package to testing . . . manufacturing . . . applying the label — R. C. gives you complete packaging service. Four strategically located plants assure prompt delivery.

R·C · CAN COMPANY

R. C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

MAIN OFFICE and Factory **103 Chambers St., St. Louis 6, Mo.**

Branch Factories: **Arlington, Tex.; Rittman, O.; Kansas City, Mo.**

SALES OFFICES:

C. E. DOBSON, 819 Carondelet Bldg., New Orleans 12, La. R. J. WATERS, 516 Fifth Ave., New York, N. Y. L. C. MORRIS Co.; 1125 Spring St., N. W., Atlanta, Ga. S. W. SCOTT, 608 McCall Bldg., Memphis 3, Tenn. E. F. DELINE CO., 224 W. Alameda, Denver 9, Colo. W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minn. CAN SUPPLY CO., 1006 W. Washington Bldg., Los Angeles Calif. C. J. TAUGHER, 1628 W. Wisconsin, Milwaukee 3, Wis.

IT'S NEXT YEAR NOW

...if you advertise to the packaging market!

How come? Because work on the 1951 edition of MODERN PACKAGING ENCYCLOPEDIA has already begun — and, with this announcement, advertising space in the new book is open for reservation. While the Business Paper Section of Standard Rate & Data gives you many of the details, here are some additional facts you will find helpful . . .

❶ The Encyclopedia—a unique combination of purchasing directory and handbook on all phases of packaging — has been published annually since 1929. It is, literally, the "bible" of the $5,000,000,000 packaging field.

❷ One of the best proofs of the effectiveness of the Encyclopedia as an advertising medium is the continued *increase* in the number of companies who advertise in it. Here's what the record shows:

There were 85 advertisers in the 1930 edition
There were 213 advertisers in the 1940 edition
There were 383 advertisers in the 1950 edition

❸ Does your company — or client — fit any of the following categories? Then the readers of MODERN PACKAGING ENCYCLOPEDIA are *big* potential customers.

Manufacturers of the raw materials of packaging (paper products, tin, ink, aluminum, glass, adhesives, plastic...)

Manufacturers of packaging machinery (cartoners, filling equipment, capping machines, materials handling equipment...)

Manufacturers of containers (boxes, bottles, cans, cartons, crates...)

Packaging Services (graphic arts, custom packagers, designers, fabricators, molders...)

❹ The 1951 edition will be distinguished by a three-column format in place of the two-column arrangement. As a result, we will carry from 15% to 20% more editorial text per page.

❺ An important new editorial feature will be a full-length section on materials handling. In it the nation's packagers will get their first tailored-to-measure study of the ways in which efficiency engineering can be utilized to streamline packaging operations. Companies that sell conveyor systems, pallets, skids, fork trucks, stackers, tote boxes, loaders, and the like have here a splendid opportunity to tap this difficult-to-reach market with sales stories placed in a section that stresses the value of such devices.

❻ Each advertiser in the 1951 edition will be accorded the privilege of designating the specific section where editorial content will produce the greatest reader interest in the product or service he is advertising.

If you've already advertised in previous editions of the Encyclopedia, you will recall that the final closing date for each edition is April 15th. You will remember, too, that it is good policy to send in your space reservation early since preferred locations are assigned as always on a first-come, first-served basis.

If you haven't advertised in previous editions of MODERN PACKAGING ENCYCLOPEDIA and would like more details about the packaging market, the editorial scope of the book and the audience it reaches, just write us.

modern packaging encyclopedia
A BRESKIN PUBLICATION
122 EAST 42nd STREET · NEW YORK 17, N. Y.

EXTRA! NEWS! EXTRA!

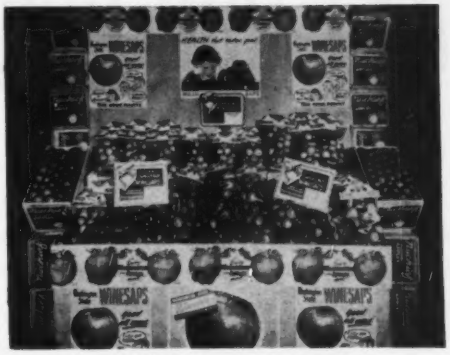
NEW DENT-O-PAK BAGS 1950's
Prepackaging Sales Sensation!

Two million 1 lb. cherry bags in one season for one packer...from a first order of fifty thousand to repeat orders of half a million for an apple grower, for both 3 lb. and 5 lb. sizes...these are only two of the "success stories" that are making Dent-O-Pak bags the sales sensation of the year.

DENT-O-PAK BAGS
Both Save and Sell!

They SAVE fruit from dehydration and flavor loss; prevent loss from handling and keep fruit in good condition.

They SELL because the consumer can see the contents, save time spent in selection and carry the fruit easily by the smart new "handle header."



DENT-O-PAK BAGS
Have These Exclusive Advantages

They may be opened instantly and fully for packing, reducing time and labor cost and eliminating loss of bags through tearing when filling.

Printing is all on the header, leaving the bag clear for visibility of contents.

Bags can be stapled or heat sealed as desired.

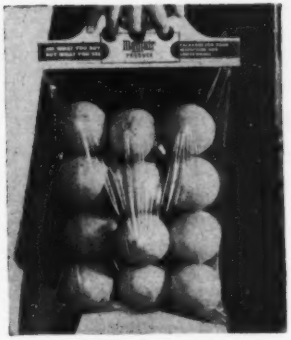
Keep fruits, vegetables, cheese, meats and all kinds of foods fresh and full-flavored for many days longer.

DENT-O-PAK BAGS
Speed Up Packing!

Added to the *proved* sales-potential of the "visible" package, Dent-O-Pak Glued-On Headers (pat. pending) offer packers the tremendous "plus" of faster filling, more economy in handling . . . and a NEW convenience feature for the consumer: The ingenious "handle header" that takes its place with the Coca Cola carrier package as a *selling* novelty of the first order.







DENT-O-PAK
Handle Headers

The ideal package for apples, oranges or potatoes...just the extra touch of convenience that gets women to talking . . . and BUYING.

DENT-O-PAK
Straight Headers

Header already attached. Open so easily and quickly that they can be machine-filled at several times speed of ordinary Pliofilm package.

MAIL COUPON FOR DETAILS *NOW!*

Please send samples and information on packing

(name products)_____

Name_____

Address_____

City_____ Zone____ State_____

REPRESENTED BY

LESTER S. WADE
3124 N. E. Fremont Street
Portland 12, Oregon

L. H. BRANDL
611 Almerica Avenue
Coral Gables, Florida

KIRBY SALES COMPANY
1256 Factory Place
Los Angeles, California

BAG SERVICE, Inc.
100 Warren Avenue
New York 17, N. Y.

HARRY WALKER
P. O. Box 505
Moultrieville, S. C.

WALTER A. MENSIOR
Route 2
Crown Point, Indiana

OUGHTRED SALES COMPANY
307 Exchange Building
Denver 2, Colorado

GEORGE D. UNDERWOOD
634 M. & M. Building
Houston, Texas

H. HERRMANN ASSOCIATES
P. O. Box 272
Drayton Plains, Michigan

GEORGE UNDERWOOD, Jr.
309 N. Medina Street
San Antonio, Texas

R. P. ANDERSON COMPANY
for New Mexico, Oklahoma, Arkansas, Louisiana and Mississippi
317 Texas Bank Building
Dallas 2, Texas

CHESTER L. MOORE & SONS
910 So. Pearl Street
Dallas, Texas

CHARLES H. HULGEN ASSOCIATES
15 Lombard Street
Philadelphia 47, Pa.

BUNN PACKAGING MACHINERY CO.
7602 So. Greenwood Ave.
Chicago 19, Illinois

The DENTON Corporation

2124 LIVINGSTON STREET, OAKLAND 6, CALIFORNIA • KELLOG 4-5615

NOW...NEW PROCESSES PERMIT US TO SAY:

"NO ALL-TRANSPARENT BOX CAN MEET OUR PRICE!"

Now—you can package your product in gleaming, clear-plastic PLASTAFOL* cartons . . . (cartons that *fold* for economical storage and shipment . . . strong cartons that set-up fast and out-last others) . . . AT PRICES NEVER BEFORE EQUALLED.

Thanks to new processes—new materials—PLASTAFOL CARTONS . . . (the *only* folding, all-transparent cartons on the market) . . . are now available at new, low prices—15, 20 and 25 percent lower than we ever were able to offer before.

If you've always regarded clear plastic packaging as too costly . . . or, if you want to cut down on your clear-plastic packaging costs, write, phone or wire us today!

Plastafol Carton Case Histories:

Foremost cosmetic house now packages eyebrow pencil and refills in Plastafol carton 7½ inches long.

Well known Pharmaceutical House dresses up doctors' samples in neat Plastafol carton ¼ x 1⅛ x 3⅝ inches.

Men's garters "sold on sight" by leading men's accessories manufacturer using Plastafol carton, 3⅜ x ⅝ x 3 ⅝ inches.

* *Trademark.*

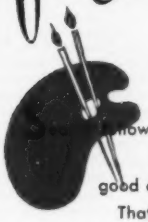
TROTH · BRIGHT · PAGE

INCORPORATED

PAOLI, PENNSYLVANIA Phone: PAOLI 1846

OVER A CENTURY

of Trademark Creating



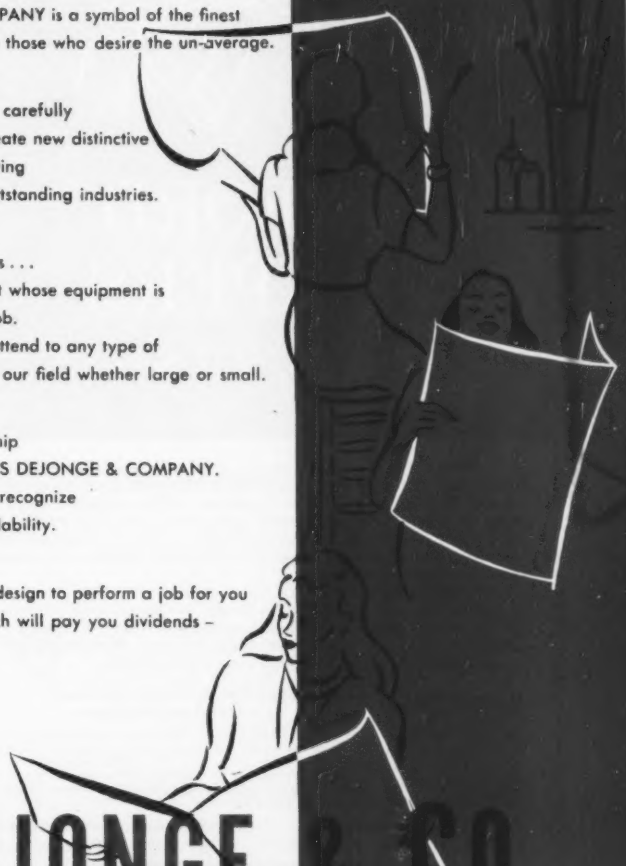
Shows season . . . mode gives way to mode.
But some things are constant . . . high craftsmanship . . .
good designing . . . color judiciously employed.
That is why LOUIS DEJONGE & COMPANY is a symbol of the finest
TRADE MARK PACKAGING to those who desire the un-average.

LOUIS DEJONGE & COMPANY'S carefully
chosen staff of artists traditionally create new distinctive
patterns . . . the ultimate in coloring . . . identifying
papers for our favored stores and outstanding industries.

The Art Department's faithful ally . . . and yours . . .
is LOUIS DEJONGE'S MILL. A plant whose equipment is
varied and adaptable for any type of job.
Our unlimited facilities enable us to attend to any type of
order in our field whether large or small.

High standard, good taste and fine workmanship
are synonymous with the name: LOUIS DEJONGE & COMPANY.
Being good craftsmen themselves, they recognize
the importance of value and dependability.

Challenge us to create a design to perform a job for you
one which you will be proud of, which will pay you dividends –
write to our sales promotion department.



LOUIS DE JONGE & CO.

345 BROADWAY, · NEW YORK · WALKER 5-1922

From Frozen Foods



To Fire Extinguishers



OXFORD PAPERS

HELP BUILD SALES

WHATEVER YOUR concern with printed selling aids—whatever the product, from foods to protective equipment—you can count on Oxford Papers to add increased effectiveness to labels, package wraps, instruction manuals, brochures and other printed items. For our mills have specialized for fifty years in papers designed specifically for the needs of users and producers of fine printing.

The practical result of this specialization has been the progressive development of a range of coated and uncoated grades that contribute to better results in offset, lithography, letterpress and rotogravure printing. In short, the Oxford label means you're sure of the right choice for the job.

Your Oxford Paper Merchant Is a Good Man to Know

There's an Oxford Paper Merchant conveniently near you. He's not only a prompt source of supply, but he's ready and able to give worth-while help with your paper and printing problems. Get in touch with him today for a copy of the helpful Oxford Paper Selector Chart—or write direct to us.

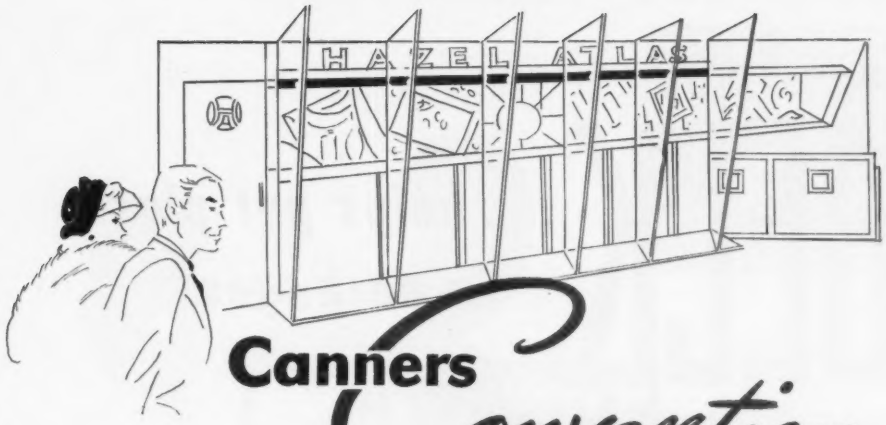
OXFORD PAPER COMPANY
230 Park Avenue, New York 17, N. Y.

OXFORD MIAMI PAPER COMPANY
35 East Wacker Drive, Chicago 1, Ill.

MILLS AT RUMFORD, MAINE AND WEST CARROLLTON, OHIO

Nation-wide Service Through Oxford Paper Merchants

Albany, N. Y.	W. H. Smith Paper Corp.
Atlanta, Ga.	Wyant & Sons Paper Co.
Augusta, Maine	Carter, Rice & Co. Corp.
Baltimore, Md.	The Mudge Paper Co.
Bethlehem, Pa.	Wilcox-Walter-Furlong Paper Co.
Boise, Idaho	Blake, Moffitt & Towne
Boston, Mass.	Carter, Rice & Co. Corp.
Buffalo, N. Y.	Franklin-Cowan Paper Co.
Charlotte, N. C.	Caskie Paper Co., Inc. The Charlotte Paper Co.
Chattanooga, Tenn.	Bond-Sanders Paper Co.
Chicago, Ill.	Bermingham & Prosser Co. Bradner, Smith & Co. The Whitaker Paper Co.
Cincinnati, Ohio	The Johnston Paper Co. The Whitaker Paper Co.
Cleveland, Ohio	The Cleveland Paper Co.
Columbus, Ohio	Scioto Paper Co.
Dayton, Ohio	Cincinnati Cordage Co. The Whitaker Paper Co.
Des Moines, Iowa	Bermingham & Prosser Co.
Detroit, Mich.	Chope Stevens Paper Co.
Fresno, Calif.	Blake, Moffitt & Towne
Hartford, Conn.	Green & Low Paper Co., Inc.
Indianapolis, Ind.	MacCollum Paper Co.
Jacksonville, Fla.	Jacksonville Paper Co.
Kalamazoo, Mich.	Bermingham & Prosser Co.
Kansas City, Mo.	Bermingham & Prosser Co.
Knoxville, Tenn.	Louisville Paper Co.
Lincoln, Neb.	Western Newspaper Union
Little Rock, Ark.	Roach Paper Co.
Long Beach, Calif.	Blake, Moffitt & Towne
Los Angeles, Calif.	Blake, Moffitt & Towne
Louisville, Ky.	Louisville Paper Co.
Lynchburg, Va.	Caskie Paper Co., Inc.
Manchester, N. H.	C. H. Robinson Co.
Memphis, Tenn.	Louisville Paper Co.
Miami, Fla.	Everglades Paper Co.
Milwaukee, Wis.	Allman-Christiansen Paper Co. Sensenbrenner Paper Co.
Minneapolis, Minn.	Wilcox-Mosher-Leffholm Co.
Nashville, Tenn.	Bond-Sanders Paper Co.
Newark, N. J.	Bulkley, Dunton & Co., Inc.
New Haven, Conn.	Bulkley, Dunton & Co., Inc.
New York, N. Y.	Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Miller & Wright Paper Co. The Whitaker Paper Co.
Oakland, Calif.	Blake, Moffitt & Towne
Omaha, Neb.	Western Paper Co.
Philadelphia, Pa.	Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co.
Phoenix, Ariz.	Blake, Moffitt & Towne
Pittsburgh, Pa.	General Paper Corp.
Portland, Maine	C. H. Robinson Co.
Portland, Ore.	Blake, Moffitt & Towne
Providence, R. I.	Carter, Rice & Co. Corp.
Richmond, Va.	Cauthorne Paper Co.
Rochester, N. Y.	Genesee Valley Paper Co.
Sacramento, Calif.	Blake, Moffitt & Towne
St. Louis, Mo.	Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc.
St. Paul, Minn.	Inter-City Paper Co.
San Bernardino, Calif.	Blake, Moffitt & Towne
Salt Lake City, Utah	Western Newspaper Union
San Diego, Calif.	Blake, Moffitt & Towne
San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
Sioux City, Iowa	Western Newspaper Union
Spokane, Wash.	Blake, Moffitt & Towne
Springfield, Mass.	Bulkley, Dunton & Co., Inc. (*Div. of Carter, Rice & Co. Corp.*) Mill Brand Papers, Inc.
Stockton, Calif.	Blake, Moffitt & Towne
Tacoma, Wash.	Blake, Moffitt & Towne
Tampa, Fla.	Tampa Paper Co.
Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
Washington, D. C.	The Mudge Paper Co.
Worcester, Mass.	C. A. Esty Paper Co. (*Div. of Carter, Rice & Co. Corp.*)



Canners Convention

At our exhibit in Atlantic City this month (one of many to make your trip worth while) you'll see how *good* products look in H-A containers.

The important thing, however, is that they look good to consumers at those daily conventions which take place in grocery stores, super markets and kitchens every day in the week.

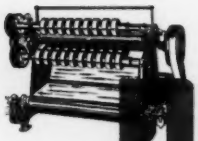


H-A containers make your products easy to pack and easy to sell.

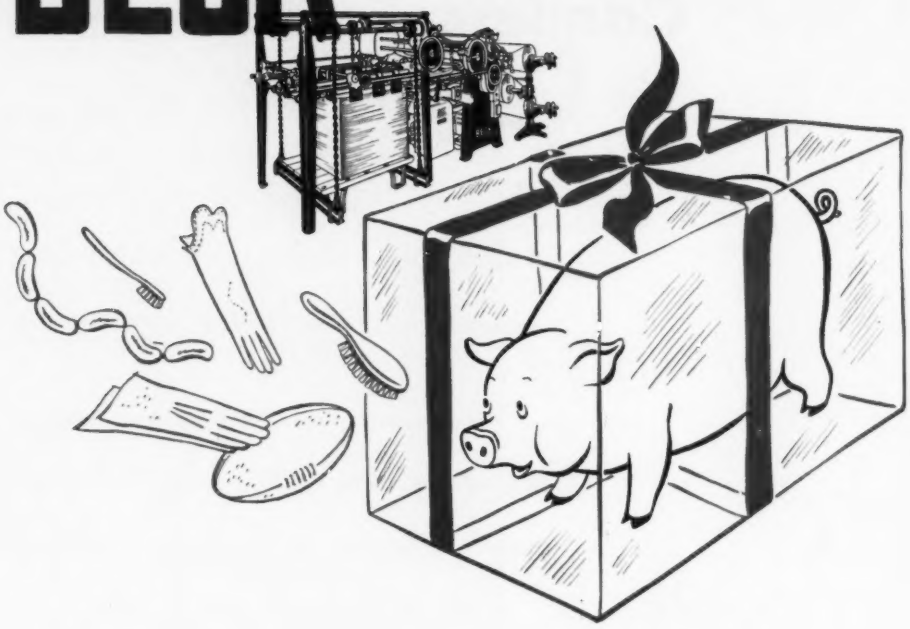




HAZEL-ATLAS GLASS COMPANY
Wheeling, West Virginia



BECK ... helps put pigs in packages!



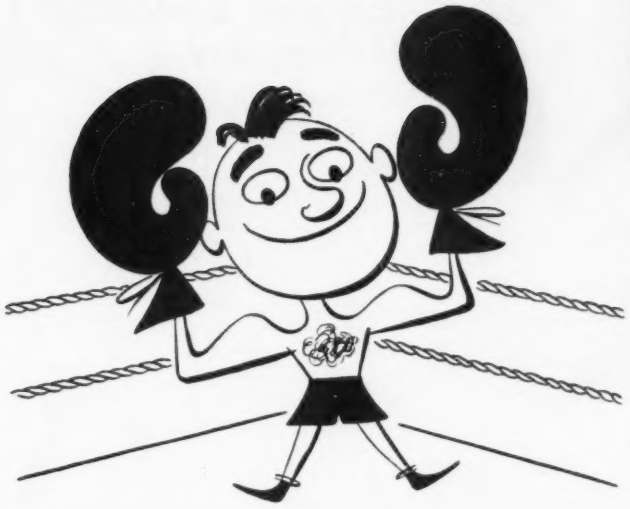
From gloves to brush bristles . . . from sausages to footballs . . . today's little pig goes to market packaged in style and packaged to sell. That's where BECK comes into the picture.

You're sure of sheets sized to your needs when a BECK AUTOMATIC ROLL SHEET CUTTER cuts, counts and stacks your packaging materials. On cellophane or lightweight cardboard the SHEET CUTTER performs quickly, neatly and accurately.

And with a 1950 BECK RAZOR BLADE SLITTER AND REWINDER, you can always count on correctly-sized rolls of the lightweight materials you use.

For package makers, package material converters, package users . . . these BECK machines speed production and slow down costs. But why not challenge our claims? Send envelope-size material samples and let us give you BECK facts and figures to fit your problems.

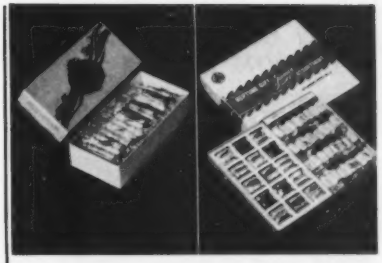
CHARLES BECK MACHINE CORPORATION
406 NORTH 13th STREET BECK PHILADELPHIA 8, PENNA.



In the ring for Increased Sales?

Get help from a Boxing Champ!

WALTER P. MILLER COMPANY, INC.
452 YORK AVENUE, PHILADELPHIA 23, PA.



SEASHORE SAGA

Packaging, a vital sales factor in the $1½ billion confectionery industry, is particularly important to makers of salt water taffy. The box must usually be its own salesman . . . and a good one, too, for boardwalk competition is stiff and the market seasonal.

In addition, many of these boxes must undergo rough handling in the mail . . . a constant hazard for souvenir purchases. Not only must the taffy be protected during transit, but the package itself must retain its freshness on arrival.

Miller-designed boxes . . . either of the sturdy telescope type or of multi-compartment construction for special assortments . . . meet all requirements of this exacting job. Delivered at reasonable cost, they are an important merchandising aid.

Confectionery is but one of many fields in which Miller packaging service is doing a creative job today. Miller boxes help sell pharmaceuticals, jewelry, hardware, toys, novelties, textiles, paper products. Whether or not you've used set-up boxes before, you'll find the Miller representative a helpful man to know. Call him in!

Designers and manufacturers of SET-UP PAPER BOXES

THEY GOT THE FACTS FROM FORBES



EMPTY, BUT LOADED! No candy in this picture. Just beautifully lithographed reproductions of twelve tasty Necco confections. Each shelf organized to display candy in serve-yourself fashion. Created and produced by Forbes, this sturdy Necco Merchandiser has won a front-and-center spot in thousands of stores. Necco's advertising agency is C. J. LaRoche & Co.



FOUNTAIN TRAFFIC is now getting the green light from this two-piece Hot Nestle's display. Girl cutout in two planes. Cup cutout has spun glass attached to simulate smoke. A Forbes creation. Nestle's advertising agency is Cecil & Presbrey Inc.



HOW MANY will use your 1950 calendar? Hercules Powder Co. has a good idea. Forbes made a mail-in survey of the 100,000 recipients of Hercules' 1949 calendar. 23,467 returned cards. 20,665 (88%) said they'd use it. 20,389 said they wanted this year's. This survey uncovered new facts about calendar do's and don't's. Forbes has the facts. Want to see them?

FORBES FACTS offer you a yardstick for gauging what form your printed merchandising should take and what you can achieve with it. These facts came from experience, continuing studies and *unique* facilities in lithography, letterpress, web gravure and die stamping under one-roof management control. Let the Man from Forbes tell you more.



Don't make that mistake. Be sure to warn your dealers to load up when you supply promotional material that's *impact-packed by the Facts from Forbes.* Results are immediate, our clients say.

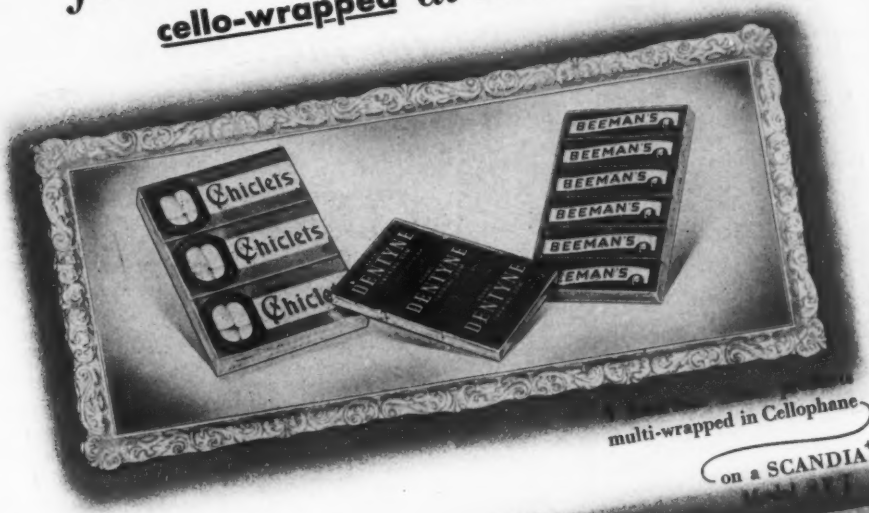


FORBES LITHOGRAPH CO.

NEW YORK • CLEVELAND • BOSTON • CHICAGO • ROCHESTER

Delivers Merchandising Impact

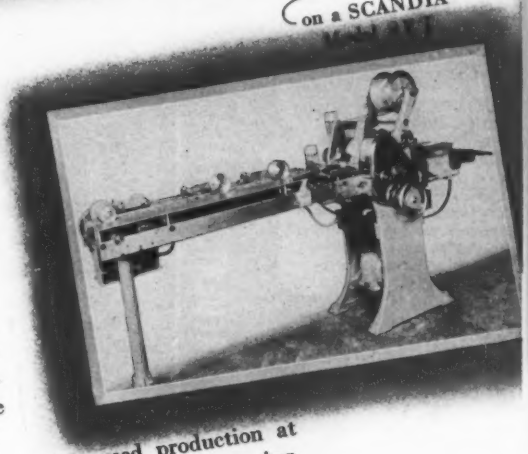
MULTI-PACKS
for multiple sales
cello-wrapped *at Lower Cost*



multi-wrapped in Cellophane on a SCANDIA†

The Facts —

100-A-MINUTE for multi-packs is standard performance on these popular packs. They are wrapped WITHOUT cardboard bases; require 30% LESS cellophane than other automatic machines because of Scandia's thrifty style of wrap and have many operating advantages — like the movable heat-sealers which automatically move away from the packages whenever the machines are stopped, thereby preventing scorching or "cooking" of the product.



No production executive, contemplating increased production at lower cost, can afford to plan until he has seen smooth-running, quiet, fast and thrifty Scandia's at work . . .

† made under Bronander patents.

★ Saving 30% cellophane —

★ without using any cardboard

Scandia
MANUFACTURING COMPANY
NORTH ARLINGTON, NEW JERSEY

Use this **Rule of Facts** *for measuring Advertising Values*



Send the Right Message to the Right People

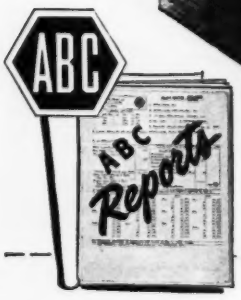
Paid subscriptions and renewals, as defined by A.B.C. standards, indicate a reader audience that has responded to a publication's editorial appeal. With the interests of readers thus identified, it becomes possible to reach specialized groups effectively with specialized advertising appeals.

THERE is no substitute for FACTS. That goes for measuring advertising values or making laboratory tests of materials for your factory. When you buy advertising space in a publication you have a cash investment in every copy of the issue that carries your sales message. Obviously some of the people who receive the paper are better prospects for your goods and services than others. Thus the distribution of your advertising, via the publication, becomes a No. 1 factor in the success or failure of your investment. To appraise a publication's advertising value to your business therefore it is necessary to have all the facts about its circulation.

Factual information regarding the identity, quality and size of business paper audiences is available to advertisers in the reports issued by the Audit Bureau of Circulations. The Bureau, a cooperative association of 3300 advertisers, advertising agencies and publishers, has established standards for measuring circulations—maintains a staff of experienced circulation auditors to audit the circulations of publisher members—issues the information thus obtained in A.B.C. reports for space buyers to use in evaluating, comparing and selecting media.

The audited information in A.B.C. business paper reports includes the answers to these questions: **How much paid circulation? How much unpaid? What do subscribers pay? What is their occupation or kind of business? Were premiums used as circulation inducements? How many subscribers renewed? How many are in arrears? Where are the subscribers located?**

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MODERN PACKAGING MAGAZINE

A BRESKIN PUBLICATION

122 East 42nd Street, New York 17, N. Y.

Neat, transparent Polystyrene boxes like these made by the Polygon Products Company of Chicago, Illinois, make attractive display packages, and when emptied can be re-used. The boxes pictured here are from Polygon's regular stock.



● Whatever the product you make, it will have greater sales appeal when it is packaged in a neat, transparent plastic box made of Koppers Polystyrene. Each Polystyrene package becomes an individual showcase. And in addition to the appealing appearance of Polystyrene packages, they have re-use value too . . . today's container becomes tomorrow's cosmetic or jewelry box, first-aid kit, or fishing tackle receptacle.

A Polystyrene packaged product is protected from dust and from soil due to handling. Food products, drugs, alkaline or acid products can be packaged in Polystyrene containers. Polystyrene is tasteless, odorless, and extremely low in water absorption. It can be supplied crystal clear or in an unlimited range of transparent, translucent and opaque colors that will add to the attractiveness of your product. And the new Polystyrene 8 has unusually high resistance to heat distortion . . . the sun will not cause it to warp when used in window displays . . . it can be washed in scalding water.

Koppers Polystyrene is a rigid plastic that gives added protection to products in transit . . . it is the lightest in weight of all thermoplastics, which means more pieces per pound and lower shipping costs.

Let Us Help You With Your Packaging Problem

Our technical staff is ready at all times to help you improve your designs and to choose the right packaging materials for your applications. Right now, why not send for one of our booklets on Koppers Plastics? It's free.

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Chemical Division Pittsburgh 19, Pa.
Regional offices: New York, Boston, Chicago and San Francisco

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Color Engraving by Modern Art decorates polyethylene bottles perfectly



**Fully protected by U.S. Patent 2,491,947. Foreign patents pending.*

It's been tested! It's been proved by thousands of applications! It's Modern Art's new color engraving process for decorating polyethylene bottles with a debossed, color wiped-in effect.

Now available! Dress up your polyethylene bottles with crisp, colorful, permanent designs and lettering...all colors, including gold and silver.

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Now Modern Art can serve you better than ever before...We've just moved into a new, larger plant where we Color Engrave *all* plastics...everything is set-up for fast, efficient production...waste motion has been cut to the bone. The result? Just ask for quotations...you'll discover that the result is superior reproduction, lower prices. Write today.

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Farrington Facts

and what they mean to you



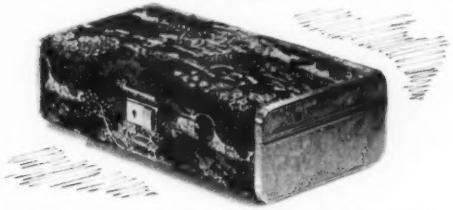
Sheaffer Gift Set



VOGUE's *"Stitch in Time"* by Belding-Corticelli

Gillette ARISTOCRAT

You are probably long acquainted with "Planned Packaging by Farrington." It may well be that your company's product already goes to market in a Farrington Package designed expressly to help that product make better sales records. Records such as those made by outstanding names.



Packaging achievements of this calibre result from the use of finest materials by two generations of craftsmen who know how to use them.

A good example of the artistry which, in packaging, belongs to Farrington alone is sturdy, all-metal Duroframe* construction . . . the *identical* construction employed in those famous jewel cases "fashioned by FARRINGTON" and selling for as much as $15 retail.



Yes, and the Farrington that makes sales-boosting packages for your products is the same Farrington whose sales-making inventiveness resulted, twenty-odd years ago, in the present nation-wide Charga-Plate* Service.

*REG. U. S. PAT. OFF.

What does it all mean to You?

That's easy. When you combine top materials with quality packaging experience . . . then, for good measure, throw in consumer knowledge, merchandising initiative and plenty of good old cost-conscious horse sense . . . you're going to end up with a package that knows how to ring the bell. **The cash register bell!** *Without obligation, we should appreciate an opportunity to consult with you on your 1950 packaging.*

FARRINGTON MANUFACTURING COMPANY

GENERAL OFFICES: 80 ATHERTON ST., BOSTON 30, MASS.

CANADIAN PLANT: FARRINGTON MFG. CO., LTD., 1191 BATHURST ST., TORONTO 4

PACKAGED *by* Farrington

DISPLAY PACKAGES JEWEL CASES METAL SPECIALTIES CHARGA-PLATE SERVICE

of a series on how "Nashua's Knack" Pays Off in Better Wrapping, Sealing, Labeling

GET BONUS ADVERTISING AND EXTRA CARTON SAFETY

with *itstix*® Printed Gummed Tape dispensed by a NATIONAL TAY-PER®



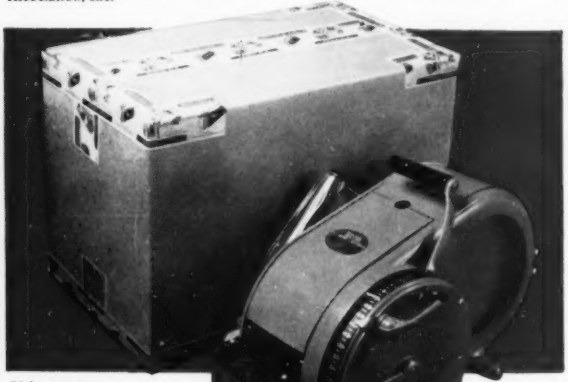
ITSTIX printed gummed tape gives you 21,600 sq. inches of *advertising space* per 600 ft. roll at negligible cost!

Prevention of costly damage claims . . . protection against pilferage . . . added advertising impact — these are three important reasons why more and more shippers are sealing with ITSTIX *printed* tape, dispensed by a NATIONAL TAY-PER with visual *positive* automatic moistening control.* Cartons are reinforced at the trouble spots (seams and corners) with all openings locked against dust, dirt, vermin and weather. Pilferage is reduced because tampering is quickly detected — thieves can't *reseal* a pilfered carton with *your* tape! Cartons are quickly identified and every container you ship is a salesman — advertising your house and merchandise. For complete details write NASHUA PACKAGE SEALING CO. INC., world's largest manufacturer of automatic tape moistening machines and gummed tape — affiliate of Nashua Gummed and Coated Paper Company

*Endorsed by the Association of American Railroads and the Gummed Industries Association, Inc.



Itstix printed gummed tape being applied to carton closures. The National Tay-per dispenses the right length of tape always (never too long or too short) — tape savings are big — up to 50%. Saves time, also.



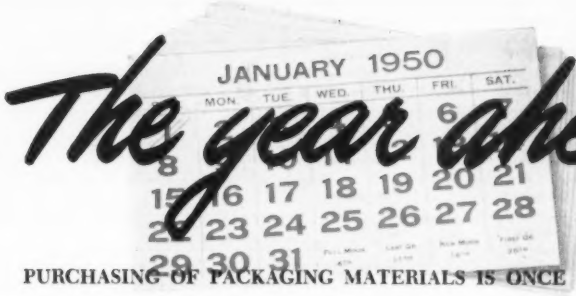
This carton "can take it"! It has been sealed *properly* by Itstix printed gummed tape — *properly* dispensed by a National Tay-per. (Tape's never too wet, too dry, too short or too long — moisture is evenly distributed.) Note the attractive appearance, too!

NASHUA
MAKES PAPER MAKE MONEY FOR YOU

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

Modern packaging

Vol. 23 No. 5 January 1950



The year ahead

PURCHASING OF PACKAGING MATERIALS IS ONCE MORE IN STEP WITH CONSUMPTION; WITH PRICES STEADY AND BUSINESS GOOD, THE REBUILDING OF INVENTORIES IS THE ORDER OF THE DAY

The buyer of packages and packaging materials, under the most favorable conditions, faces a constant challenge. For him the war years and several years following were a prolonged period of scarcity. Then suddenly conditions changed; a buyers' market developed overnight and there came a period of hand-to-mouth buying and cautious price resistance. Many buyers in their caution went almost too far to the other extreme.

Now, although there are undercurrents that are mildly disturbing, the package buyer sails on a more even keel. Careful inquiry among package buyers discloses no very serious occasions for worry.

This is not to say that the life of the purchasing agent is without its difficulties. The latest Container Committee's bulletin of the National Assn. of Purchasing Agents comments:

"Efficient buying and scheduling of containers have been very difficult under conditions involving a steel and coal strike, the effects of currency devaluation, box-car shortages, unbalanced inventories and, not least among the pertinent factors, a demand for retail goods (packaged) that is difficult to forecast."

At the beginning of the year 1949 and through the first quarter, container users were extremely cautious. In general, toward the end of 1948 the business outlook had been rather pessimistic. MODERN PACKAGING, it may be remembered, in the face of this general pessimism, a year ago looked forward to 1949 with high hopes for another year of peak packaging activity. Figures released by the Department of Commerce late in November, 1949, confirmed this prediction. They revealed that gross production fell off less than 1.4% in spite of periods of protracted idleness on the part of steel mills and coal mines.

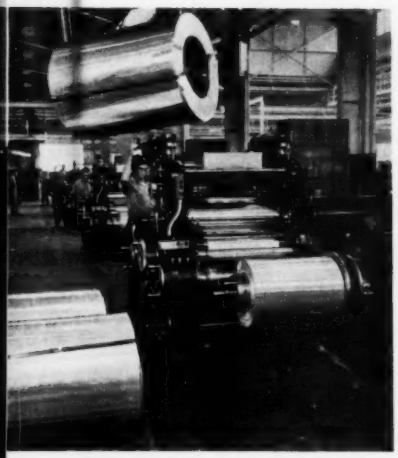
The year closed, according to a nationwide survey jointly conducted by the New York Credit Men's Assn. and the Los Angeles Credit Managers' Assn., with cause for continued optimism. Inventories in retail stores, they found, had resumed normal levels, orders and collections were steady, cancellations had been reduced, the business-failure ratio was not alarming and there was a continued healthy resistance to high prices.

Keeping proper balance of inventories of packaging material will continue to be the major problem of the purchasing agent. The Department of Commerce reports that during the second quarter of 1949 production of containers temporarily declined; by mid-summer, the report goes on, container inventories were at dangerously low levels, although business in general continued on a relatively high plane. The third quarter saw a seasonal increase in orders for containers that continued into the fourth quarter. In prospect for 1950, says the Department, is a very favorable outlook for the winter and spring.

Current inventory practice is summarized in the accompanying table (Page 74), compiled from a study made by MODERN PACKAGING of the opinions and buying practices of those charged with maintaining adequate supplies of packaging materials in a number of widely divergent lines of business. At this time last year the cautious purchasing agent followed the admonition of the National Assn. of Purchasing Agents to classify packaging supplies as either readily available or not readily available. Today, for the most part, necessity for this distinction has disappeared and careful study of the table discloses level-headed, normal inventory practice and normal delivery for most supplies. Textile bags seem to be the outstanding exception; the burlap market in

CURRENT INVENTORY PRACTICE AND DELIVERY PERIODS FOR PACKAGING SUPPLIES

ITEM	INVENTORY	DELIVERY	SPECIAL NOTES
FOLDING BOXES	3 months	5-6 weeks	Tight market
SET-UP BOXES	6-8 weeks	5-6 weeks	Easy market
PAPER SHIPPING BAGS	5-6 weeks	1-2 weeks	Current market active
TEXTILE BAGS	3-4 weeks	1-2 weeks	Indian burlap market now upset
LABELS FOR BOTTLES	3 months	3-4 weeks	
LABELS FOR METAL CANS	3 months	5-6 weeks	
METAL CANS	3-4 weeks	5-6 weeks	Steel strike caused temporary shortage
COMPOSITE CANS	3-4 weeks	5-6 weeks	
COLLAPSIBLE TUBES	3 months	3-4 weeks	
GLASS CONTAINERS	3-4 weeks	3-4 weeks	
METAL CLOSURES	3 months	3-4 weeks	
PLASTIC CLOSURES	3 months	5-6 weeks	
CELLOPHANE	6-8 weeks	5-6 weeks	
METAL FOILS	6-8 weeks	6-8 weeks	
CORRUGATED SHIPPING CASES	3-4 weeks	3-4 weeks	Market easy
STEEL DRUMS	1-2 weeks	3-4 weeks	Some gauges scarce
FIBRE DRUMS	3-4 weeks	3-4 weeks	Market easy
WOODEN SHIPPING BOXES	Very low	1 week	Market very easy
ADHESIVES	5-6 weeks	1-2 weeks	Keep high inventory in winter
STEEL STRAPPING	6-8 weeks	3-4 weeks	Schedule in advance



ALUMINUM FOIL production was greatly increased during the past year by the opening of the large-capacity Kaiser rolling mills at Permanente, Calif., and near Spokane, Wash.

India is almost completely disorganized due to political conditions in that country. The situation is not bad news, however, for the producers of multiwall paper bags and cotton textile bags, who insist that their wares are more than satisfactory as substitutes. At any rate, they offer the bag user a ready alternative.

With respect to the price outlook, prophets are wary and predictions are very scarce—prognosticators feel there are too many conflicting factors to permit a definite picture of the future. In some cases, it is to be noted, increased productive efficiency and improved processes will tend to offset increased costs of labor and raw materials. The package buyer will do well to watch the markets closely, as prices will tend to reflect general conditions.

Paper—No. 1 material

Paper continues to hold its place as the No. 1 packaging material. The over-all production for 1949 will approximate 20 million tons, as compared with 21,921,757 tons for 1948. Predictions indicate that production in 1950 will probably be less than in 1949, with prices stabilized at current levels. Deliveries are on a normal basis.

Offset paper is one of the specialized varieties of book paper of most interest to the packager. Production for 1949 declined about 8% from the 1948 figure, amounting to 227,000 tons. Normal conditions are anticipated as to delivery in 1950 and prices will show a little or no change.

Glassines and greaseproof papers accounted for approximately 125,000 tons in 1949, approximately a 5% increase over 1948. The curve is expected to show another increase for 1950. These types of paper are among the beneficiaries of the tremendous increase in pre-packaging and the producers look forward to a continuation of that activity. Delivery time is three to four weeks.

Waxed paper shows a production figure of about 300,000 tons for 1949, which is about 12% less than the 1948 production. For 1950, the producers expect about the same figure as for 1949, with little change in prices, as labor and raw materials are expected to remain steady.

Unbleached kraft consumption fell off in 1949 as compared with 1948. The figure for the year just passed was 1,875,000 tons, as compared with 2,160,000 tons for 1948, but 1950 is expected to see the figure increased to 2,000,000 tons. Deliveries are normal, requiring 30 to 60 days. There will be pressure for higher prices, but increased imports will serve to hold the price level even. Observers in this field see as stimulative forces a continuation of good retail sales of nondurable products. High farm production will call for volume in shipping sacks.

Fancy papers for set-up boxes fell off to the tune of 10%, but producers are hopeful that 1950 will show an uptrend. Current deliveries are from one to four weeks.

Metals situation

Steel production was cut into considerably by strikes. The figure for 1949 is 75 million net tons of ingot steel as compared with 88,640,000 net tons for 1948. Current opinion weighs the uncertainties of the future, but if the general business level is maintained, there will be little change in steel tonnage. Delivery time ranges from a minimum of a few weeks for certain grades of steel to four or five months for others.

During the steel strike, many can manufacturers continued to fill orders from plate on hand, although in some instances it meant extra cost—hence lower profit—for themselves and superior quality of goods for their customers.

Price predictions for 1950? Nobody in the steel field wants to go out on a limb, but observers point to the fact that, though capital equipment is slowing down, construction and consumer goods continue strong.

The control order, M-81, was cancelled as of Dec. 1, 1949, but producers and users of tin began to anticipate the effects months ago. Probably never again will the tin content of most metal cans approximate prewar consumption. Today 50% of all metal cans are electrolytically plated. The following table shows the consumption of tin from 1939 to 1948 in long tons:

1939—38,094	1944—26,337
1940—40,277	1945—27,390
1941—46,900	1946—27,051
1942—29,404	1947—31,833
1943—22,643	1948—33,822

The heavy consumption of the three prewar years took a sudden drop as control and conservation orders were put into effect beginning in 1942; but electrolytic methods make it certain that very little tin of the 1.50 content will ever again be used. The 1949 figure reflects the effect of the steel strike, being about 30,000 long tons, and 1950 is expected to consume about 33 to 35,000 long tons.

Beer and citrus concentrates show a most striking growth in the use of metal cans. Three or four years ago, the brewers used 12 million cans. In 1949 they requisitioned 3,700,000,000 cans and will doubtless call for more in 1950. In the season ending June, 1949, citrus concentrates used 200 million cans. Next season, ending June, 1950, is expected to call for 350 million or more. The beer can will not eat into the tin stock-pile to the extent that the fruit-juice can will, as the latter requires a comparatively high tin content of hot dip.

Aluminum foil continues to grow in popularity and new packaging applications. One source alone produced in 1949 approximately 15 million pounds, a figure 8 to 10% higher than in 1948. Delivery time has been reduced to three or four weeks. No apparent increases in costs of production or distribution are anticipated, so prices will probably remain static. The aluminum milk hood has shown a considerable increase and promises to go higher. The baking industry appears to be using more foil, as do new package developments, particularly the frozen-foods field.

Although the percentage of the yearly production of lead for packag-



NEW PRODUCTS mean new avenues for packaging materials. Frozen orange-juice concentrates, practically nonexistent a couple of years ago, had used 200 million cans up to the end of June, 1949. Bing Crosby is singing Minute Maid brand to fame.

EXTRUDER SET-UP for the completely automatic production of thermoplastic bottles. The now-familiar polyethylene squeeze-bottle is currently being turned out by the millions on equipment similar to that illustrated below.

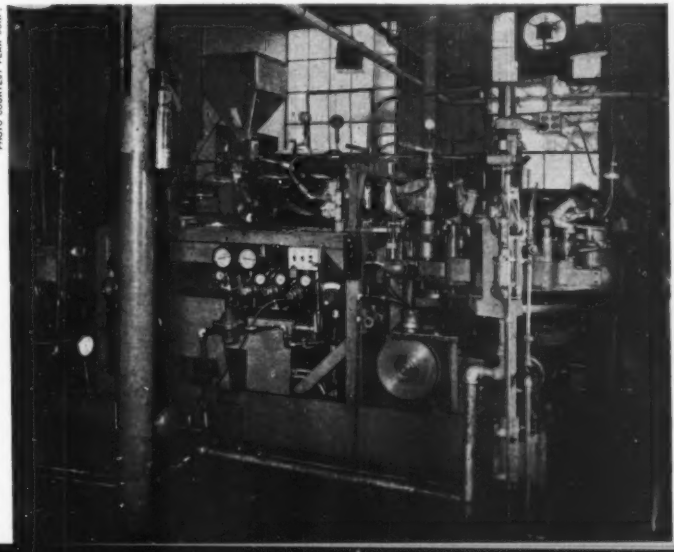


PHOTO COURTESY PLAX CORP.

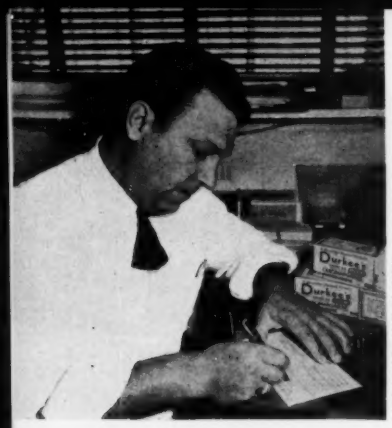


PHOTO COURTESY DURKEE FOODS.

YELLOW MARGARINE opens up opportunities for new packages (and makes some old ones obsolete). First Ohio retailer to apply for a Federal license to sell yellow margarine was Paul Smith, the owner of Paul's Market, located at Monroeville, Ohio.



ANTIHISTAMINES, the new "cold-killing" drugs, in 1949 started one of the most intensive scrambles for new packages in the history of the pharmaceutical industry. Here Thomas D'Arcy Brophy of Kenyon & Eckhardt, Inc., and Robert B. Brown, Bristol-Myers vice president and general manager, look fondly at their new catch-book pocket pack of Resistab tablets. **(See story on page 78).**

ing uses is relatively small, its contribution is very important. Principal uses are in the alloys for collapsible tubes and for can solder. Formerly, lead foil was used quite extensively in the packaging of such products as imported teas and to some extent this is still the case. During the current year, however, lead foil found a new application in the packaging of film for a new type of immediate-developing camera. The lead foil protects the film up until the time the picture is taken and development occurs. Total production for 1949 was 1,125,000 tons of pig lead, which was approximately 5% lower than the 1948 figure. For 1950 the anticipated production is a conservative 1,000,000 tons. The price curve will be up slightly, as inventories are almost at a minimum.

To the delight of the cosmetic industry, where brass is regarded as the ideal material for applicator containers such as lipstick, brass production has resumed normal. The industry reports an estimated 1949 output of 750,000 tons of brass and copper, representing a decline from the 1948 figure. Deliveries require about four weeks on an average. The 1950 price curve is said to be dependent upon price changes in the component metals, as well as the wage patterns.

The cellophane appetite

The appetite of the packaging field for cellophane appears to be insatiable. One responsible guess places the volume of production for 1949 at 280 million pounds, which is a substantial increase over 1948. License has been granted by the DuPont organization under which Olin Industries, Inc., soon will manufacture cellophane in an eight-machine plant with an estimated yearly capacity of 33 million pounds. Since the original announcement was made early in November, Olin Industries has announced the purchase of the Ecusta Paper Corp. at Pisgah Forest, N. C., which will shorten by at least four to six months the time required for the beginning of their manufacture of cellophane. The producers are all very cagey with regard to price predictions. Delivery time is somewhat improved, the maximum being now about four weeks.

The rubber industry in all its subdivisions reports a production for 1949 of 250,000 to 980,000 tons. This compares with 1,069,404 tons consumed in 1948, a reduction that was anticipated due to declining demands. The 1950 volume will probably be close to the 1949 figure. How much of this tonnage goes into the packaging field is anybody's guess. Packaging uses are not separately recorded in the industry, but the chief packaging uses are for stoppers, sealing compounds and closure gaskets, and these uses are expected to maintain their hold.

As nearly as can be accounted for, packaging called for 335 million pounds of adhesives during 1949. This figure includes vegetable, animal and resin-base production and represents a 5% increase over 1948. The same relative increase is anticipated for 1950, the figure being put at 350 million pounds. Deliveries, except for occasional high seasonal demands, are normal. Prices have stabilized and for anything in the foreseeable future will be determined by commodity and labor markets.

The ink industry as a whole keeps no statistical records, but observers believe the 1949 volume to be about the same as 1948 and look forward to an increased volume for 1950. Deliveries are on a normal basis, as there are no current problems of supply, except that raw-material prices have soared. This factor will have an effect on 1950 prices, but technical improvements and increased efficiency in manufacturing processes are expected to offset some of the necessary increases.

Plastics volume increases

Practically without exception, producers of plastic materials report increased volume as compared with 1948, although it is practically impossible to ascertain the tonnage utilized for packaging purposes. For those interested in statistics of production, the following figures are quoted from the U. S. Department of Commerce reports for the period Jan.-July, 1949:

Cellulose acetate, molding and extrusion materials	27,926,431 lbs.
Phenolics for adhesives	12,104,205 lbs.
Phenolic molding materials	55,932,881 lbs.
Urea and melamine resins for adhesives	20,455,726 lbs.
Urea and melamine resins for protective coatings, paper treating, etc.	17,391,706 lbs.
Styrene molding materials	89,337,031 lbs.
Vinyl resins for sheetings and films	76,242,652 lbs.
Vinyl resins for molding materials	37,071,409 lbs.
Miscellaneous molding materials*	20,833,229 lbs.

* Includes data for acrylic, aniline-formaldehyde, polyethylene, nylon and other molding materials.

Not much change is anticipated in prices of plastics, which are expected to "follow the market," although one producer points to better production methods as likely to cause a decrease in price. Present delivery time is immediate in some cases, though making orders requires as much as three months. All the producers anticipate an increase in production for 1950.

In fabricated form, most types of packages declined in production volume for the year 1949, according to reports from the Department of Commerce. In the majority of cases there is nothing alarming about the decreases. The accompanying table (titled "Estimated Production of Containers, 1948–1949") shows the comparison between the year just passed and 1948. Many of the 1949 figures were projected on the basis of the year's performance. It is quite possible that when the final revisions are made, there will be some adjustments.

Machinery deliveries

Packaging machinery manufacturers during 1949 experienced something of a decline in volume. Obviously, the stampede for machinery is over and a healthy, normal activity has taken its place. There is practically no problem in obtaining any of the materials necessary; even the steel strike had comparatively little effect. Many of the manufacturers, looking forward to the year 1950, see a continuation of about the same productive rate as they experienced in 1949, although an equal number expect an increase in volume.

The delivery time required by the machinery manufacturers seems to have returned to the prewar standard and a further improvement is expected in 1950. Not much change is expected (*Continued on page 168*)

ESTIMATED PRODUCTION OF CONTAINERS 1948-1949*

TYPE OF CONTAINERS	1948	1949	Per cent change from 1948	1950 outlook
Consumer-type containers				
Metal cans (tons of steel)	3,247,000	3,200,000	−1.5	3,300,000
Metal crowns (gross)	333,473,000	275,000,000	−17.6	Decrease
Commercial closures, metal (units)	8,779,000,000	8,000,000,000	−8.9	Decrease
Plastic closures (units)	1,996,000,000	1,919,000,000	−3.9	
Glass containers (gross)	98,721,000	88,000,000	−9.0	85,000,000
Home canning seals (gross)	17,879,000	15,000,000	−15.0	
Collapsible tubes (gross)	5,356,000	5,250,000	−2.0	Same
Paper milk bottles (tons)	162,333	175,000	+7.1	
Hood and lid cover stock (tons)	16,745	17,000	+1.6	
Liquid-tight containers (tons)	24,470	24,000	−2.0	
Cups and round nested food containers (tons)	76,928	75,000	−2.5	
Ice cream, frozen food and butter container stock (tons)	162,608	160,000	−1.5	
Milk-bottle plug caps (tons)	21,802	22,500	+3.1	
Folding boxes (tons)	2,182,000	2,000,000	−8.4	Decrease
Set-up boxes (tons)	596,000	550,000	−7.8	Decrease
Fibre cans and tubes (tons)	243,000	225,000	−7.5	Decrease
Paper bags, incl. grocery and variety bags (tons)	728,000	660,000	−9.3	
Shipping containers				
Steel drums and pails (tons steel)	918,000	825,000	−10.2	825,000
Fluid-milk shipping containers (tons steel)	23,300	20,000	−14.1	
Nailed wood boxes (board feet)	4,500,000,000	3,800,000,000	−15.6	Decrease
Plywood boxes and drums	n. a.	n. a.		
Wirebound boxes (units)	124,213,000	110,000,000	−11.5	Slight increase
Slack cooperage (units)	35,000,000	31,500,000	−10.0	
Tight cooperage (units)	5,500,000	4,500,000	−18.0	
Metal strapping (tons steel)	390,000	370,000	−5.2	
Corrugated and solid fibre shipping containers (sq. ft.)	61,614,000,000	57,000,000,000	−7.5	55,000,000,000
Fibre drums (units)	18,000,000	17,500,000	−2.8	Increase
Paper shipping sacks (tons)	617,000	500,000	−19.0	Same
Bags, textile (yds.)	1,314,000	1,183,000	−10.0	Decrease

*Source: Estimates collected by the U.S. Dept. of Commerce based upon data supplied by Census Bureau, other Government agencies, trade associations, trade journals and industry representatives.

The cold

In a race as hot as that which accompanied the introduction of ammoniated dentrifices a few months earlier, at least a dozen drug manufacturers were scrambling last month to get on the market with proprietary antihistamine "cold-killing" tablets, following the decision of the Food & Drug Administration to allow over-the-counter sale of certain new drugs, previously sold only as prescription items.

Packaging seemed to be assuming a pattern, several of the leaders offering:

1. A pocket-sized package, usually a catch-book-type folder containing 10 or 12 tablets individually sealed in plastic film.

2. Bottles or vials containing from 15 to 50 tablets.

First to splash with national advertising in late October was Union Pharmaceutical Co., with Inhiston in catch books of 12s and bottles of 36s, stealing a march on The Anahist Co., which, according to industry sources, was ready first, but held back on its promotion to tie up with Paul de Kruif's *Reader's Digest* article in the December issue. Anahist appeared only in bottles of 15s and 40s, not using the catch-cover package, but using cartons and labels showing evidence of careful advance planning in the selection and arrangement of typography to give an ethical effect.

Following close on the heels of these, in a matter of days, were Whitehall's Kriptin in cartoned bottles of 36s and catch books of 10s; Bristol Myers' Resistab in bottles of 36s and catch books of 12s and Grove Laboratories' Antamine in a 12-tablet package—the only one appearing in a sleeve box. Also approved for over-the-counter selling were Wyeth's 25-mg. Neohetramine tablets packaged in units of 25 tablets in clear glass vials with applied color labeling and polyethylene plug-type closures—the same package used earlier for physicians' sampling.

If some of the first label designs showed evidence of haste, leaving refinements until later, it was no wonder, under the extreme pressure of procurement of packaging supplies and production to battle it out for what has been called the hottest pill market since aspirin. Sales of Anahist, for example, were reported to have soared from nothing to $1,000,000 in a month. In December Bristol-Myers reported sales of Resistab running four to five times greater than introductory sales of any Bristol-Meyers product introduced since the company's establishment in 1887. Union Pharmaceutical was reported to be shipping 30,000,000 Inhiston tablets a week by truck and air freight all over the country.

During the first procurement rush in November one glass supplier said, "We were going nuts—getting orders for 10,000 gross one day and two days later having the orders raised to 50,000 gross." Cap suppliers were producing more than 100,000 closures overnight. Carton makers were turning out millions of cartons in similar lengths of time. In many cases raw materials and packaging supplies were loaded onto specially chartered cargo planes for shipment to plants where the packaging was done.

Packaging requirements

Packaging for antihistamine tablets requires a good degree of protection, as the product is hygroscopic. However, as various types of antihistamine drugs had already been packaged and sold by prescription during the last few years protective requirements were pretty well understood. When the rush came for over-the-counter packages, the problem was not how to package, but in what units, depending on formula and number of tablets required for effective dosage. Most firms realized that in addition to a standard medicine bottle of 36s, 40s or 50s, there was needed some sort

First manufacturers of antihistamine cold tablets



THREE BRANDS appearing within a matter of days are using cartoned bottles of 36s and handy pocket-sized packages of the catch-book type holding either 10 or 12 tablets individually sealed in plastic film. Catch-book packages have many advantages to recommend their use. They are speedy to produce have ample display surface and are convenient.

rush

RACE FOR ADVANTAGE IN THE MUSHROOMING ANTIHISTAMINE MARKET PUTS THE DRUG INDUSTRY'S PACKAGING DEPARTMENTS TO THE TEST

of smaller trial-sized or pocket-type package.

The catch-book type of sealed pocket package, developed for physicians' sampling and used widely during the war for aspirin when metal boxes were unavailable, offered many advantages. First, the contract packager who produces them can turn them out in his plant, complete and ready for shipment, at the rate of 10,000,000 in one shift per day. The drug manufacturer need only send his tablets in bulk, plus the printed catch-book blanks, shipping cartons, etc., to the contract packager's plant and he does the rest. In one case, tablets and catch-book blanks were received at the contractor's plant on a Saturday morning and completed packages were being shipped out on the afternoon of the same day.

The catch-book package offers protection in that a special Pliofilm-acetate-combination film seals out moisture. Some firms are using this lamination in transparent form. Others are using it with powdered aluminum sprayed between the plies on one side, thus giving an opaque backing to the tablets which are visible through the other transparent side. The aluminum powder may be used in its natural silver color or mixed with color; several firms are using colored backings.

The catch-book package is also advantageous, say the drug firms using it, because of its display possibilities. The printed surface both inside and outside offers sufficient space for brand identification, legal data and dosage directions. On the counter, the catch-book gives bulk to a small item and is easily seen in counter display cartons. Further, looking like a match folder, it suggests that it be carried in the same way in the user's purse or pocket.

For packages containing 25 to 50 tablets, the cartoned bottle or vial seemed an obvious choice to most drug firms. Both private and stock molds are being used, depending on availability and time involved. Several have adopted amber glass, not for any particular protective reason, they say, but because amber is an accepted type in medicine bottles. Paper labels have been used most generally, except in the case of Wyeth's vial for Neohetramine, which has color-applied labels. Standard metal caps with vinyl or wax-coated liners are generally used on bottles. Designs for catch books, cartons and paper labels have generally been limited to two colors to shorten printing time.

Record production speed

One of the fastest packaging jobs on record was reported by Whitehall Pharmacal Co. The company's Kriptin was ready for national distribution in a little over a week from the time the first carton sketches were approved. If a little faster than most, Whitehall's procedure was typical of that followed by other antihistamine producers.

Whitehall, along with other drug companies, had been studying antihistamine drugs for some three years.

The real scramble for distribution began after the appearance of Anahist and Inhiston, produced by newcomers to the trade. Before any company could go ahead, it had to have its own approval of its formula from the

set the packaging pattern



VARIATIONS of the packaging theme. Anahist uses well-designed cartoned bottles for 15s and 40s. Grove Laboratories put 12 of their Antamine tablets in a cellophane-wrapped sleeve box. Ethical-looking is Wyeth's Neohetramine in glass vials with applied-color labeling and polyethylene plug-type closures. NEOHETRAMINE PHOTO COURTESY KIMBLE GLASS.



COUNTER UNITS had to be timed with packaging deadlines. Above are two Resistab displays, both designed for quick brand identification.



PROMOTIONAL MATERIAL also had to appear simultaneously—window streamers, carton toppers, etc.—simple, bold, direct, compelling messages to help the druggist attract the customer with a cold.

FDA. Before approval is granted and before management makes up its mind on the appropriation for a new product, little can be done about ordering packaging supplies. Then production departments must move fast.

At 7 o'clock Thursday night, Nov. 3, Whitehall's purchasing department received art work for the cartons. By Friday morning it had color proofs. "We should have been shipping cartons on Wednesday," said Whitehall, "except that color plates had to be remade because the original comprehensives were scaled wrong and the first plates did not register with the score lines."

In spite of this difficulty, by Saturday noon the carton maker had supplied three quarters of a million cartons. In the meantime raw material in bulk, labels, bottles, caps, shipping cartons and cases had been obtained and were on their way by truck and plane to Elkhart, Ind., where Kriptin is manufactured and packaged. Truck drivers were given special assignments to make the trip from New York in two days instead of the usual three. By Monday, Nov. 14, the first shipment of completed packages was under way.

Private-mold bottles

Through a stroke of luck, Kriptin could be introduced in private-mold amber bottles. Quite recently Whitehall had adopted a new mold to be used for its Anacin tablets. As these molds were available in the glassmaker's plant, it was possible to proceed immediately with production for Kriptin.

Kriptin was packaged in the Elkhart plant on stand-by semi-automatic filling and cartoning equipment formerly used for Anacin before present fully automatic lines were introduced. The package inserts might have been a serious handicap, but Whitehall was able to call into service an outfit which can do one of the fastest folding jobs in the country, taking 6$^{1}/_{8}$-by-3$^{9}/_{16}$-in. printed sheets and folding them into $^{9}/_{16}$-in. inserts ready to go around the bottle end-to-end inside the carton. The present Anacin line will do this operation automatically, but on the semi-automatical line, the Kriptin inserts had to be put in manually.

Catch books, too

No sooner were the cartoned bottle packages of Kriptin distributed than Whitehall management decided that Kriptin should also be in catch-book packages of 10s. This demanded a whole new packaging procedure—a modified design of the Kriptin carton for the catch covers, die-cut counter-display cartons and promotional carton toppers, window streamers, etc. The catch-cover folders were printed overnight and shipped to the unit packager's plant. Production of unprinted cartons to hold 12 of these catch-cover packages of 10s was started immediately, rubber stamped for identification, while copy, designs and plates were obtained for producing fully printed, die-cut cartons. As the carton maker got sufficient production under way, time was allowed for varnishing the counter-display cartons. All of this was done also in a matter of two weeks, the first catch-cover packages being produced and shipped only two days after the packaging materials were ordered by the purchasing department of Whitehall Pharmacal.

During the first few weeks all producers of antihistamines were faced with similar problems in meeting deadlines and suppliers achieved the impossible in making shipments of packaging materials. Within a matter of days one could make his choice of the various brands on drug-store counters.

CREDITS: *Catch-book unit packs, Ivers-Lee Co., Newark, N.J.* **Anahist:** *bottles, T. C. Wheaton Co., Millville, N. J., and Owens-Illinois Glass Co., Toledo, Ohio; labels and printing of inserts, Sandy Printing Co., Inc., New York; cartons, Wilkata Folding Box Co., Kearny, N. J., and Wagner Folding Box Corp., Buffalo, N. Y.; metal closures, Jesselson Sales Co., Inc., New York, and Owens-Illinois.* **Inhiston:** *cartons and printing of catch-book folders, Wilkata; bottles, Hazel-Atlas Glass Co., Wheeling, W. Va.; labels, Liberty Press, Bloomfield, N. J.; metal closures, Hazel-Atlas and Ferdinand Gutmann & Co., Brooklyn, N. Y.* **Resistab:** *labels and printing of catch-book folders, Guide-Kalkhoff-Burr, Inc., New York; bottles, Owens-Illinois; metal closures, Crown Cork & Seal Co., Baltimore, Md., and Owens-Illinois; cartons, National Folding Box Co., Inc., New Haven, Conn.; easel-back cards, Oberly & Newell Lithograph Corp., New York.* **Kriptin:** *labels, printing of catch-book folders and inserts, Wilton Printing Co., Inc., New York; folding of inserts, Joseph A. Gilosa, New York; bottles, Fairmount Glass Works, Inc., Indianapolis, Ind.; metal closures, Ross Container & Seal Co., New York, and Crown Cork & Seal; cartons, General Carton Corp., Brooklyn.* **Neohetramine:** *Opticlear bottles and color-applied labeling, Kimble Glass Div. of Owens-Illinois, Toledo, Ohio; cartons, Brown & Bailey Co., Philadelphia, Pa.* **Antamine:** *sleeve box, F. N. Burt Co., Inc. Buffalo, N. Y.*

CIRCUS THRILL

A & P ANIMAL CANDIES ACHIEVE IT

WITH CIRCUS-WAGON CARTONS PRINTED BY NEW SHEET-FED GRAVURE PROCESS

The new series of packages for Worthmore Animal Candies, distributed by the Great Atlantic & Pacific Tea Co., is designed to appeal to circus lovers, young and old alike, who remember the excitement of seeing strange animals being unloaded and the thrilling sound of the caliope during the circus parade.

Delighted youngsters who discover that each carton in the series features one of a series of eight multicolored cut-out pictures of wild animals on the back panel are sure to want the whole set to play with. Nostalgic parents can see that the packages also serve an educational purpose, since a description of the animal and its habitat accompanies each one, the text being written in simple, easy-to-read words.

Naturally, the animal shapes of the candies inspired the basic package design, but the realism of the treatment may be traced to the designer himself, who happens to be an ardent student of circus lore, living in the town made famous by P. T. Barnum and, indeed, having his studio on the site which Barnum had used as the headquarters for his circus during the winter months.

All of the carton front panels are the same design—the well-remembered red circus wagon, decorated with scrolls and arabesques which are printed yellow to represent gilt paint. The die-cut, cellophane-covered window is designed to look like the open side of the wagon with lions and a giraffe appearing to peek out of the wagon "cage."

The name logotype under the window has curlique lettering reminiscent of that which was used on old-time circus posters.

Illustrations of a performing seal balancing a ball and a costumed monkey face the product identification on the top panel. A mustachioed ringmaster, complete with his red coat and black whip, appears on one end panel, while on the other is a wistful clown.

These colorful figures appear as if they were standing in the doors at each end of the wagon.

The original drawings of the eight animals pictured on the back panels —elephant, camel, giraffe, gorilla, hippopotamus, lion, tiger and zebra— were done in water colors by the designer, who also wrote the descriptive copy with a light touch appealing to both children and adults. The copy for the camel, for instance, reads: "This Arabian native travels 8–10 miles an hour in places horses cannot walk. He drinks 15 gallons of water at a time. His huge nostrils smell water miles away but close so tightly that not a grain of sand can enter."

Each animal has a small bit of background in which he stands so that when he is cut out, by folding along dotted lines, he will stand alone. A narrow gray line around the beast is the cutting guide. With five of the panels being completely illustrative, the circus cartons have numerous display possibilities for the retail store.

CUT-OUT ANIMAL, with stand-up base, adorns back of each Worthmore Animal Candy carton—eight different animals in the series to spur juvenile collectors. Bright color and realistic detail are provided by gravure printing.



Carton stock

Recognizing that much of the eye appeal of the carton would depend upon the colors, A & P officials planned at the beginning to use a new four-color gravure process recently developed for fine-screen printing directly on the sheet-fed carton stock.*

All of the art work was done with this process in mind. Printed in combination, eight per sheet, it is reported that these cartons represent the largest single run so far of sheet-fed gravure carton printing.

The 1-lb. cartons open at either end. For added strength, the inner tucks lock together and the outside flaps "pi-lock."

CREDITS: *Design, Robert G. Neubauer, Bridgeport, Conn. Cartons, Robert Gair Co., Inc., New York.*

* See "New Carton Gravure," MODERN PACKAGING, March, 1949, p. 94.


AFTER 42 YEARS of stodginess, Minute Tapioca gets modern pictorialization without loss of long-established identity. Four different dessert vignettes are assorted in shipments and on shelves, to add interest to display. Unfamiliarity of clerks and housewives with product's possibilities was found a definite sales handicap.
MINUTE TAPIOCA
1908
1917
1922
1928
1936
1938
1940
1942
1944
1947
1949
1950
For a variety of delicious Desserts
Makes 36 Servings

Tapioca reborn

HOW PACKAGE REDESIGN GOT MINUTE BRAND

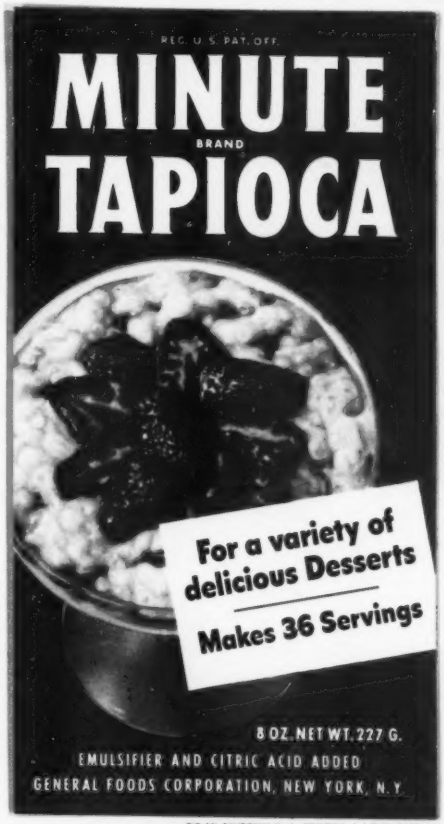
BACK IN ITS PLACE ON THE STORE SHELF AS AN APPETIZING DESSERT PRODUCT

This is the story of a "lost" package and how it was found and restored to its rightful place on the shelf.

The recovery demonstrates significantly how modern pictorial package design treatment, combined with superlative reproduction processes, can give an old, well-established product new sales life. The effect of the design treatment can be counted on to have a wide influence in modernizing package design of many similar products.

Through realistic vignette illustrations of taste-tempting dishes of rich, creamy tapioca puddings embellished with luscious-looking fruit toppings, Minute Brand tapioca, produced by General Foods Corp. in Orange, Mass., becomes one of the outstanding packages in its product group to *show* shoppers what it is and how it can be used.

ACTUAL SAMPLE of carton front shows the eye appeal that has been achieved in the new package by a special method of four-color process lithography.



TIP-ON COURTESY U. S. PRINTING & LITHOGRAPH CO.

History of the package

Over half a century ago, a dissatisfied sailor at Susan Stavers' boarding house in Boston told her she could make much better tapioca puddings if she would first put the tapioca flakes through her coffee grinder. That was the real beginning of Minute Tapioca. When she followed his suggestion, Susan found a great improvement in the tastiness of her puddings and, to oblige her neighbors and friends, she often sold them packets of the fine-ground tapioca.

One of these friends, John Whitman, who was the editor of a newspaper in Orange, Mass., became interested in merchandising the tapioca and organized the Whitman Grocery Co. in Orange to grind and package the product. In 1908 the name of this company was changed to Minute Tapioca Co. and the Minute Man trademark, patterned after the pictures of the Minute Men of Concord, was adopted as the central design on the front of a blue and red printed carton, symbolizing the speed of preparation.

The evolution of the package design from that 1908 Minute Man carton to the present is shown on page 82.

The first carton was designed so that the panel carrying the Minute Man trademark would be the front panel, but it was soon apparent that dealers and customers were more impressed with the back panel of the carton which had the name printed in reverse in a blue band against a bright red background, the rest of the copy also being printed in reverse white. Hence the carton design was soon altered so that both the front and back panels had the same design as shown in the 1917- and 1922-style cartons.

The most drastic modern change came in 1928, two years after the company was sold to Postum Cereal Co., General Foods' parent organization. The lettering in the dark blue band was modernized and the band itself was straightened out from its diagonal position to the horizontal position. At the same time the importance of the name was increased by reducing the size and importance of the Minute Man trademark; it was redesigned to fit into a circle and appeared on the redesigned cartons printed in reverse in the blue field just above the name band.

Eight years later, in 1936, another step was taken when a pre-cooking process was developed for the tapioca which reduced the housewife's cooking time to only five minutes. To advertise this improvement, a white patch was added to the front panel. This white patch was retained and from time to time new sales messages were printed in it. Except for minor changes—the simplification of the name-band shape, strengthening the colors and the addition of the perforated opening tab—this was the appearance of the Minute Tapioca package until the end of 1949.

The need for a change

Sales of Minute Tapioca had slowly decreased during the past decade for a variety of reasons:

Off the market. The basic raw material for tapioca is the flour obtained by grinding the carrot-like roots of cassava plants, which grow most successfully in Java. During World War II these cassava-flour supplies were cut off entirely and Minute Tapioca disappeared from grocery shelves



MODERNIZATION extends to back and side panels, with brilliant blue and red lettering on buff-colored bands. Back panel is same for all cartons; side-panel recipes vary, with 14 in the series. Perforated pour opening is retained. Minute Man trademark appears only on bottom.

once prewar stocks had been exhausted early in 1942.

Increased competition. The number of dessert food products, such as prepared pie fillings and pudding mixes, ice cream mixes, etc., which compete indirectly with tapioca, increased tremendously. A market survey made for General Foods showed that in 1938 there were 51 of these products; by 1948, the number had increased to over 160, including General Foods' own Jell-O Tapioca Pudding as a direct competitor.

New homemakers. A whole new postwar generation of young housewives—the company estimates 15,000,000 women—hadn't been educated on the virtues of tapioca in preparing a variety of appetizing desserts quickly and economically. According to the survey, 71% of the total desserts made by women in the youngest age group (under 29 years) were "prepared," only 29% were "home made." The loyal users of Minute Tapioca were largely older women who had used it for many years.

Changes in retailing. The transition from service to self-service-type grocery stores was an important influence because it spotlighted the weakness of the old Minute Tapioca package design. In spot checking stocks at self-service stores, General Foods' salesmen often had a mighty hard time finding Minute Tapioca, even when they were sure the dealer had ample supplies. The cartons appeared in the oddest places—sometimes next to bird-seed packages in the pet food section; sometimes with soap and household cleaning preparations; often with breakfast cereals or dried products such as beans and barley. In short, the packages were likely to turn up anywhere in the store except where they should be—with dessert products.

Here was a package, supposedly famous and well-recognized, literally "lost" because, as investigation showed, the design gave so little indication of the contents that stock clerks were never sure where to put the cartons. The package design had failed tragically to meet the needs of changing times.

Promotion of Minute Tapioca through advertising might remedy to a great extent those first three points, but Norman Anderson, Minute Tapioca sales and ad manager, felt any campaign would be wasted unless the last point was considered as the basic problem. Under the circumstances and armed with the results of the market study and store checks, it was not difficult for him to persuade top management that the first corrective measure should be the complete redesign of the package for better identification both of the product and of product use.

Changes made

The addition of pictorial elements to the package was, obviously, the most effective way to give more product identification; however, the designer consulted by the company in the package moderization was careful to retain the identifying features of previous packages to give continuity between the old and the new. On the new package, for example, the name logotype in its distinctive dark blue band was simply shifted to the top of the panel; the red was retained as the background shade and the familiar white patch was also kept. All of these familiar elements now serve as "arrows" pointing to the center of attention—the new full-color vignettes.

The designer planned four illustrations of the pudding ready to eat, each with a different colorful fruit topping—sliced strawberries, oranges, peaches or cherries. Originally only one of these was to be used for the new carton, but when mock-ups of the four were shown to dealers for a vote, each received such overwhelming favor that it was decided to use all four. The decision was justified also because of the greater display interest provided by this variety of illustration on the shelf both at the store and in the home, where it is estimated that the average carton will be consumed in three months' time.

Each shipping carton of 36 packages contains nine cartons of each individual design. At the plant there are four packaging lines, each handling one design; the outputs from these lines converge at the casing machine, where the multiples of nine are combined and cased automatically.

While major emphasis rests on the redesigned front panel, the remaining five sides of the carton were not overlooked. Recipes printed on the side and back panels give the consumer many ideas of how tapioca may be used. The recipe for the basic tapioca pudding illustrated in the vignette is always given on the back panel. On one side panel of each carton, two recipes are provided for baked apple tapioca and cherry pie (tapioca as the thickening agent in the fruit filling), but the two recipes on the other side panel vary with the different cartons. Altogether, 14 different recipes are printed in the series and from time to time, it is anticipated, new ones will be substituted.

The recipes are printed with dark blue inks on a pale, buff-colored background. The pudding recipe on the back panel is introduced with a free-hand sketch of a pudding dish at the top, while the bottom border band contains copy giving suggestions on how the basic recipe may be varied by adding fruits, chocolate chips, nuts, etc. The brilliant whiteness of the paperboard stock, increased by press varnishing, provides a contrasting background for these two border bands.

The Minute Man trademark is transferred to the bottom panel, where it appears next to the name. The top panel with the tear-back opening flap is unchanged except for a transposition of the elements to give a right-side pour-out.

The secret of the unusual sparkle and life of the new Tapioca cartons is the use of a special technique of color plate-making for lithography. The process has been employed not only to (*Continued on page 178*)

Packaging paper products

MECHANIZING THE BOOMING NAPKIN-AND-PLATE INDUSTRY MAKES POSSIBLE TRIPLED PRODUCTION WITH HALF AS MANY EMPLOYEES

Paper plates, napkins and table covers—millions of them—are now being cellophane wrapped, banded and labeled automatically by several leading producers. The change-over from manual to machine packaging of such items represents one of the latest and most important developments in the history of this booming industry.

Not so many years ago, paper plates and napkins were produced on a seasonal basis, primarily for summer picnics and outings. Plain white was the standard color and the severely plain sets emphasized service rather than appearance. With the recent trend toward every-day use of these items in the home and the introduction of matched, colored sets for major holidays, birthdays and other special occasions, producers were able to reshape their operations on the basis of a year-around business and lay their merchandising plans accordingly.

From the practical standpoint, paper table-service items proved their merit during the war—saving manpower, facilitating mass feeding operations and making it easier for busy housewives to participate in the war production effort. Recognizing the value of such commodities to the wartime economy, the Government classified their production as essential. But the steeply increasing use of paper plates and napkins since the war stems not only from the fact that they eliminate dishwashing and cut laundry bills. Equally important to modern housewives are the pleasing decorative effects which they provide, at modest cost.

In the past, wrapping, banding and labeling of paper plates and napkins were operations usually done by hand. As the industry stepped up its volume, manual packaging became an increasingly serious bottleneck, particularly in view of developments in automatic printing and folding of paper napkins. A modern paper-napkin unit, in one continuous operation, can take a roll of paper, emboss it with a linen-like design, print it in as many as four colors and quarter-fold and count the finished napkins—all at a rate of some 24,000 napkins per hour.

Paper plate and napkin producers have been interested in the possibility

BATTERY OF MACHINES at Sutherland Paper Co. wrapping paper plates with prelabeled cellophane. Hot-die stamping presses (left) feed plates to intake belt; wrapped plates come off discharge belt (foreground) to be packed in shippers.

ALL PHOTOS COURTESY OLIVER MACHINERY CO.



of mechanizing their packaging operations for a number of years, but until recently few such programs met with much success. Mechanical problems—awkward plate shapes and contours, range of sizes to be handled, variations in label position on different patterns—made progress difficult. On napkins, one of the greatest difficulties was that of maintaining the stack at uniform height, without crushing during the wrapping operation. Also, it was necessary to incorporate in the package a backing board which would serve as a foundation for the transparent wrap and give it sufficient rigidity to withstand normal handling.

During the past three years, a leading manufacturer of wrapping equipment has cooperated with several producers of paper plates and napkins in overcoming the problems inherent in packaging these items. At the top of the list on this packaging program were two Kalamazoo, Mich., organizations—Sutherland Paper Co. and Beach Products, Inc., which have pioneered in the mechanized packaging of paper tableware. Sutherland's "Serviset" paper tableware and Beach's "Handi-Set" merchandise are today packaged with the most modern automatic and semi-automatic machinery.

Wrapping machines of the same type, with minor modifications to meet special operating conditions, are used by both Sutherland and Beach. Taken together, these two installations embrace practically all the problems involved in wrapping, banding and labeling of paper plates, napkins and table covers, and they are therefore particularly useful as a study.

Sutherland operation

In the Sutherland plant, three of the plate-wrapping units are located immediately adjacent to the six hot-die stamping machines which shape the plates on a rapid cycle in heated dies. Plates are made in two sizes and in more than a dozen attractive designs. On each wrapping machine, girl operators gather the plates in stacks of six or eight and load them on the infeed conveyor. They take the plates from stacks, counting them into groups of proper number and keeping the wrapping machine filled to capacity.

The wrapping machines are loaded with a roll of heat-sealing cellophane and a roll of thermoplastic labels. Prior to the wrapping operation on each stack of plates, the labels are applied automatically to the web of cellophane, the exact position of the label varying according to the size of plate and pattern being run. The wrapping operation is accomplished automatically.

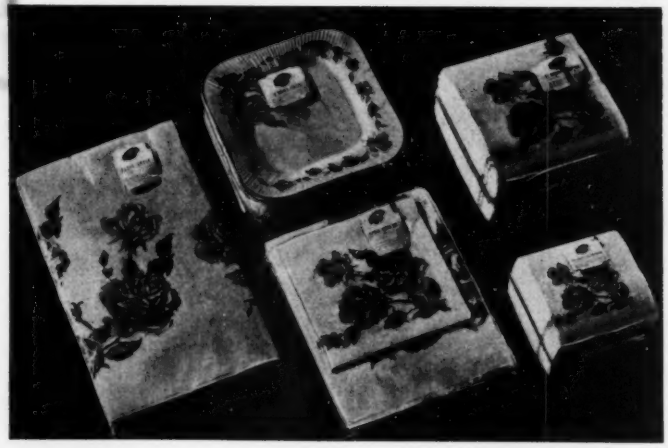
The machine cuts the cellophane to proper length and completely wraps each stack of plates, forming inconspicuous folds beneath the bottom plate and effecting almost instantaneous heat seals as the wrapping operation is completed. Plates pass from the infeed conveyor to the elevator, at which time the web of cellophane, with thermoplastic label in position, is supported in a vertical plane. Thus the stack of plates virtually pulls the cellophane about itself, permitting a close wrap around the surface of the product. Machine adjustments permit variable tension on the wrapping material for a looser or tighter wrap.

After the wrapping operation, the plates move out on a ball-bearing discharge conveyor to a short belt conveyor, at the end of which the completed packages are placed in shipping containers. Labels applied to the containers identify each of the various patterns.

Several modifications of the wrapping equipment were made to permit its use for paper plates. The plates are held firmly in the stack by means of a stack-wrapping attachment and an overhead transport grasps the edges of the plates to prevent them from tipping during the wrapping process. Specially shaped folders and heaters permit the bottom seals to be made at angles conforming to the contour of the plates.

Of particular importance in the Sutherland operation is the flexibility of label placement afforded by the equipment. The entire labeling mechanism is adjustable in two directions, permitting the thermoplastic label to be spotted in any desired location in the final package. Since label placement varies on the different plate patterns and sizes, this flexibility of adjustment, handled while the wrapping machine is in operation, avoids the necessity of costly shutdowns. Adjustment of label position is completely mechanical and involves no photoelectric cells. In some instances, the label is positioned on the back of the wrap, interleaved with the cellophane to guard against smearing.

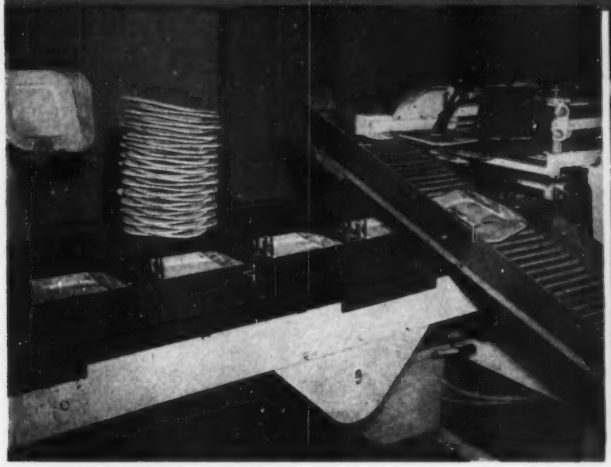
NEATLY WRAPPED, thermoplastically labeled paper table products as produced by machine in two Kalamazoo plants. They carry Beach Products Co. label.



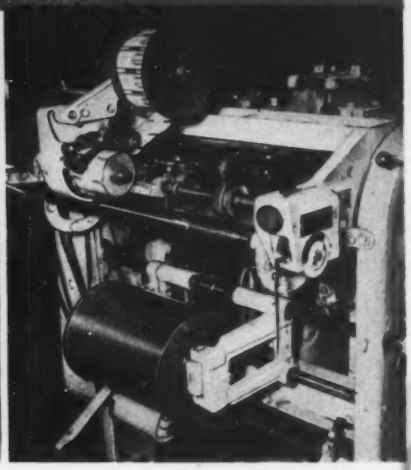
Beach Products packaging

At the plant of Beach Products, Inc., several of the wrapping machines are in operation banding and labeling decorated napkins, table covers and luncheon or party sets. Each unit handles the output of two napkin-printing, embossing and folding machines. The operation is essentially the same as that on paper plates, except that the soft napkins and table covers require the use of a piece of paperboard beneath each package to serve as a foundation for the wrap. Also, of course, the production set-up requires a different system of handling prior to the actual wrapping operation.

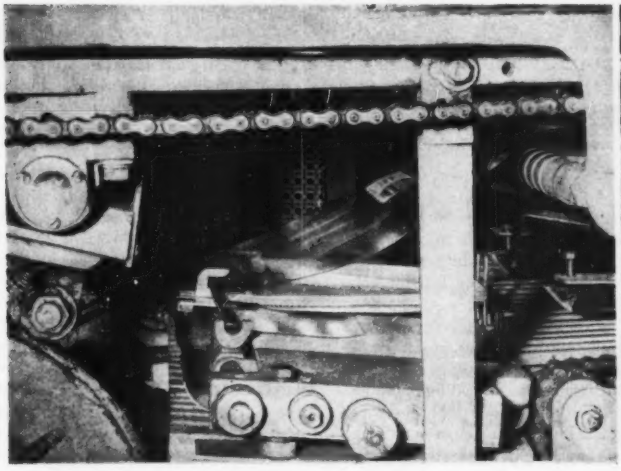
Paper plates packaging



PLATES ENTERING wrapping machine in stacks on the intake belt, illustrated at the left. Completed units, wrapped and ready for shippers, come down roller discharge conveyor (right) at Sutherland Paper.



LABELING MECHANISM feeds thermoplastic labels from roll, cuts them off, applies them to the cellophane at predetermined intervals.



CELLOPHANE IS APPLIED as stack of plates moves from infeed conveyor (right) to elevator; as elevator rises, sheet is cut off, wrapped around plates, heat sealed on bottom with label in proper position.



LEAVING MACHINE on the ball-bearing roller discharge belt after the completed packages have passed through the compression unit.

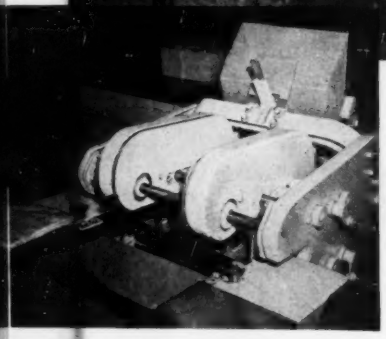
As the napkins emerge from the printing and folding machines, they are automatically counted. In order to mark the number of units, every 15th napkin, or every 50th, etc.—depending on the setting—protrudes slightly from the rest of the stack. These "counters" simplify the handling of the stacked napkins by the operators. In some instances, overhead carriers suspended from a traveling chain carry the napkins to wrapping machines, which are some distance from the production units. For the wrapping machines located adjacent to the printing and folding equipment, the transfer is made by hand truck.

Backing boards are fed automatically onto the infeed conveyor of the wrapping units. As they come past, two operators place the jogged, counted stacks of napkins upon them. Two small spots of adhesive are applied to the underside of each backing card to prevent the wrap from slipping off the finished package. This applies, however, only to those nap-

Wrapping of napkins

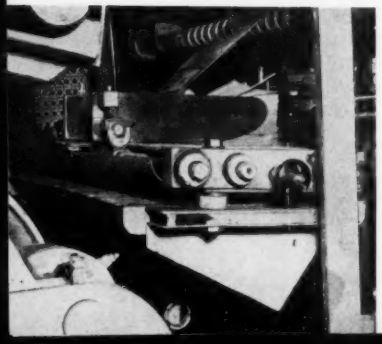


AT BEACH PRODUCTS, collating of assorted colors of napkins is accomplished with series of vertical magazines (right), one for each color. Stacks of properly assorted colors move on short conveyor to turntable, from which two infeed operators load the wrapping machine, placing each stack of napkins on card fed automatically from the card feeder at the end of the machine.



CLOSE-UP of card feeder, specially developed for operation. Cards are accurately positioned ahead of the constantly moving flights of the infeed conveyor.

ENTERING ELEVATOR, special compressors help control height of package, while folding tuckers help to keep stacks aligned.



kins which are given an open-end "sleeve" wrap; on others, which are completely wrapped like the paper plates, there is no need for the strips of adhesive.

The thermoplastic labels, fed from a continuous roll, are automatically applied to the heat-sealing cellophane prior to the actual wrapping operation. As the napkins move into the wrapping machine, the stack is maintained at uniform height by means of a pressure bar. When the stacks of napkins enter the elevator of the wrapping equipment, specially designed compressors assist in controlling the height of the package, while the folding tuckers, which are not required for the sleeve-type package, help keep the napkins in correct alignment. At the discharge end of the wrapping machine, the packaged or banded units roll down a ball-bearing discharge conveyor to a table where a girl packs them in shipping cases.

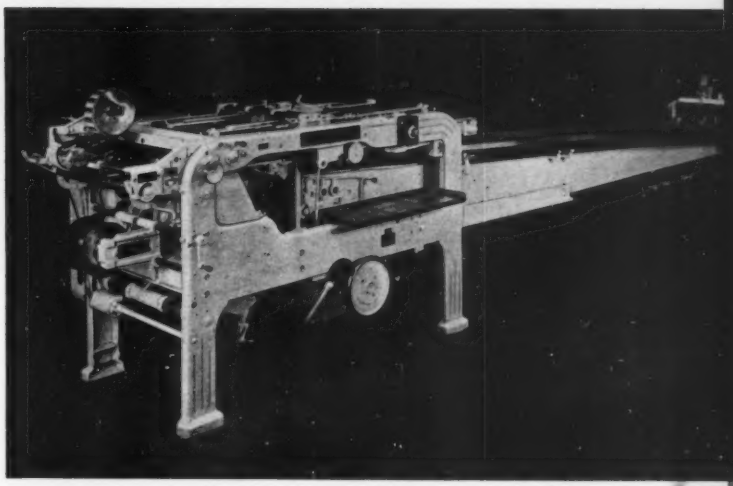
For the Beach installation, the wrapping machine manufacturer developed a special type of card feeder capable of automatically feeding flat support boards up to $8^1/_2$ by 15 in. in size. This feeder is used on a unit employed for wrapping large table covers and sets of napkins and table covers. Through this equipment, each card is accurately placed in position ahead of the constantly moving flights of the infeed conveyor and the operators simply place the paper table covers or any desired group of items on the cards as they pass each station.

Installation of automatic wrapping equipment has greatly increased the production efficiency of the Beach plant. Wrapping speeds of approximately 44 packages per minute are maintained on each unit, whereas in earlier days, manual wrapping produced far fewer packages per hour at higher cost. Furthermore, the finished product was much inferior to those resulting from the present mechanized production. In 1946 the Beach plant had a large number of women engaged in hand wrapping of the napkins and

table covers. In some instances the company purchased its cellophane by the roll and did its own sheeting of the material in order to reduce packaging costs. In the hand wraps, a loose label, gang folded, was hooked over the edge of the stack. Among the difficulties encountered with hand wrapping was the frequent changing of adhesive in order to suit the different types of cellophane used.

Installation of wrapping machines has also greatly reduced the amount of space required for packaging operations—an important consideration in view of the fact that Beach, operating far ahead on seasonal patterns, requires a large amount of warehousing space. This storage requirement, which stems from the bulkiness of the merchandise and the large number of patterns handled, necessitates having warehouse facilities which occupy a rather high percentage of total plant area. Getting the highest possible production out of the space available has been accomplished not only through the installation of wrapping machines, but also by the adoption of automatic folding equipment, together with overhead conveyor installations and the use of pallets to increase the effective warehousing area.

During the past two years, in connection with a plant-wide "streamlining" program, Beach has modified its entire system of handling the packed shipping containers of paper specialties from the wrapping operation to storage areas. In the past, the shipping cartons of finished products were transferred from the packaging department on hand trucks and stockpiled manually. Under the present system, shipping containers are placed on pallets directly at the wrapping machines and carried to storage areas by means of electric fork trucks, where they are double or triple decked as required. All subsequent handling of the shipping containers within the plant is eliminated, since at the proper time the shipping cases are transferred directly from the warehouse to trucks or railroad cars for shipment to the purchaser.



OVER-ALL VIEW of type of wrapping machine used by Sutherland and Beach.

At present the Beach factory is producing substantially in excess of its 1946 volume with about half as many employees.

The Beach officials are particularly pleased with the flexibility of the wrapping equipment because of the many changes necessitated daily by different sizes and patterns. Simplicity of adjustment permits the machines to be changed over from one pattern to another during the employees' rest periods.

When Richard W. Beach introduced matched sets of decorated paper tableware to the U. S. market after a trip to Europe in 1926, he initiated a trend which elevated the paper-napkin industry to a new position of importance. By pioneering the adaptation of high-speed automatic wrapping equipment for products of this type, his company has again marked itself as a leader in this highly competitive field.

CREDITS: *Wrapping machines and printed thermoplastic roll-type labels, Oliver Machinery Co., Grand Rapids, Mich. Cellophane, Cellophane Div., E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., and Sylvania Div., American Viscose Corp., New York.*



Gift-wrapped uniforms—with miniatures

By packaging nurses' uniforms in printed cellophane wraps, The Barco Garment Co. of Los Angeles brings this utilitarian item into the gift category and enhances the product's selling power. The wrap keeps the white nylon garment clean, while the package itself is effective for counter display. The problem of exchanging gift uniforms due to incorrect sizes and style preferences has been solved by a gift certificate card, which is a miniature reproduction of the gift uniform, inserted in a cellophane envelope to resemble the packaged uniform.

CREDIT: *Wrap and envelope, Milprint, Inc., Milwaukee.*

THIRTEENTH OF A SERIES



On this month's cover . . .

Whitman's Sampler

Ask 10 people what is America's most famous box of candy and nine will say Whitman's Sampler.

That alone makes the Sampler the logical nominee from its field for MODERN PACKAGING's suggested "Hall of Fame" of packaging, but the company that produces it—Stephen F. Whitman & Son, Inc.—has many other packaging distinctions:

Its boxed candies were the first to be nationally advertised and nationally distributed.

It originated the in-the-lid diagram technique of locating and identifying each piece of candy.

It introduced the refrigerated display case, which has taken the seasonal fluctuation out of sales and changed the candy-eating habits of the nation.

It was the first company in its field to use cellophane for packaging—and possibly the first in any field in this country, long before cellophane was manufactured here.

The Sampler is a package made with superlatively high standards of quality, consistently maintained for both package and product.

Packages are filled with such attention to quality and precision that the president of the company himself serves as the chief inspector.

With smart merchandising and advertising, playing always on the same theme, the Sampler has attained a pinnacle of recognition as the symbol of romance . . . of the importance of being thoughtful . . . of "remembering." To woo a pretty miss, to thank a gracious hostess, to mark a charming lady's anniversary or birthday—whatever the occasion may be, generations of Americans have grown up convinced that a Whitman's Sampler box of candy is man's best means of expressing himself.

Particularly appropriate, therefore, is our cover illustration, duplicating a scene from one of Whitman's early Sampler television commercials—a field in which the company again was a pioneer.

The Cross Stitch Sampler* is the oldest package design in the whole Whitman candy line today and is the link that binds together the early history of the 108-year-old Philadelphia company with the present—although it was not the first candy box used by the company. Most people are surprised to find that the Sampler package dates only from 1912; it has an ageless yet aged look about it that suggests that it has been around at least a hundred years. That impression is strengthened by the phrase, "Started in 1842," which appears as part of the Sampler cover design and again inside the lid.

Origin of the package

What started in 1842 was a little "confectionery and fruiterer shoppe" at 426 Market St. where a young Quaker Philadelphian, Stephen F. Whitman, made fine, high-quality candy to challenge the imported

* Cross Stitch Sampler is the registered trademark of Stephen F. Whitman & Son, Inc.

ACTUAL SAMPLER, worked by Mrs. B. Connaughton of Riveredge, N. J., from which lithographer's plates for current box-cover paper were made. The original 1912 sampler is no longer in existence; this one is kept in President McIlhenney's office safe.



FAMOUS TRADEMARK, in addition to Sampler package itself, is the cross-stitch messenger, used on displays, on candy, in advertising and literature.

PHOTO COURTESY EINSON-FREELMAN CO., INC.



NOMINATED FOR PACKAGING'S HALL OF FAME BECAUSE:

- **It's "the world's best-known, best-liked box of candy."**
- **It pioneered techniques that made possible year-around national sale of boxed candy.**
- **It helped introduce cellophane to American packaging.**
- **No mass-market package is produced with greater fidelity to high-quality standards.**

sweets then coming from England and the Continent. The company has made candy continuously since that year.

Mr. Whitman's little store attracted not only Philadelphia's great ladies, but often, the story goes, sailors who wandered up Market St. from the wharves, drawn by the wonderful aromas that wafted from the candy kitchen. On subsequent trips back to the city, the sailors often brought Mr. Whitman boxes of rare fruits and nuts for his confections, for which he paid high prices. This started the practice of gathering the highest-quality ingredients for Whitman's candies from the exotic far corners of the earth—a practice which has persisted to this day.

The fame of his candies spread rapidly to New York, Baltimore, Washington and inland from the Eastern Seaboard, and Mr. Whitman early realized that it was necessary to package his product. His first packaged candy, appearing in 1854, was an elegant box, all pink and gilt, lavishly decorated with designs of rosebuds and curliques, the lettering on the cover announcing that it contained, "Choice Mixed Sugar Plums from Stephen F. Whitman."



DIAGRAM IN THE LID was a Whitman Sampler invention, adding interest and convenience to selection from the exquisitely packed assortment. Note the piece in the center molded in the shape of Sampler messenger-boy trademark.

INSPECTION RITUAL takes place in President McIlhenney's office every two hours each working day, when an attendant brings samples of the packaged candy direct from the production lines to his office for critical scrutiny.



There were many succeeding packages—including one called "The Fussy Package for Fastidious Folks," which was introduced in 1907—but none of those earlier packages exist today. It was not until Walter P. Sharp became president that the Sampler came into existence.

In Mr. Sharp's home there was an old embroidered sampler worked by his grandmother. Looking at it one day, Mr. Sharp suddenly thought how attractive were the linen background, the delightful cross-stitch designs of birds, animals, flowers and the quaint



REFRIGERATED DISPLAY CASE for dealers was a Whitman innovation that was designed to take the seasonal fluctuation out of sales. It boosted business by as much as 600%. In the case above, many other Whitman candies are displayed—but the Sampler gets feature spot.



POINT-OF-SALE displays have always been important to Whitman merchandising. This 10-color, life-like display has been widely admired, is typical of Whitman quality standards.

little house. Not only would the sampler make a good design for a package, but the name, he thought, would be perfect. Thus a family heirloom was the inspiration for the original Sampler package design.

An artist was commissioned to draw sketches for the proposed new package based on the sampler motifs. Other samplers were studied so that he might select what he considered typical patterns and incorporate them into his sketches of the package to make a composite sampler design. The one non-sampler motif included was the winged dragon in the upper right corner of the cover; it was the early Whitman trademark.

But when the sketches were shown to Mr. Sharp and his associates, it was felt that they somehow failed to reproduce the essential "feel" of a sampler. The idea for the new package seemed doomed to failure until someone in the company discovered an old lady who had made samplers when she was a young girl and who was willing to work from the artist's sketches and try to make a real sampler. It was her beautifully worked sampler which finally was reproduced by lithography on the cover paper of the hinged set-up box into which went Whitman's assortment of the company's most popular chocolates and confections. The design has been changed only by the most subtle degrees through the years, as shown by the sequence illustrated herewith.

The diagram in the lid

When the new Cross Stitch Sampler package was introduced in January, 1912, not only was the realistic package cover much admired, but candy lovers were delighted with the box when it was opened, for on the inside of the hinged lid there was another innovation—the printed diagram showing what the pieces of candy were in each of the trays of the compartmented box.

This "index," as it is called by the company, has proved a powerful sales feature for the Sampler. It may well be credited with bringing to an end the era of candy pinchers—those unpopular persons who surreptitiously poke a finger into a chocolate-coated piece to find out whether it is a caramel or a cream. Although the diagram has been changed from time to time, the placement of pieces according to the diagram is always precisely maintained.

Cellophane from France

Only a few months after the Sampler had been placed on the market it acquired a cellophane overwrap.

Horace Whitman, son of the founder, came back from a trip to France with a small supply of plain, transparent cellophane which had attracted his attention there when he saw it being used as a decorative packaging material. He thought it would add immeasurably to the freshness and brightness of Whitman's packages, as well as keep the packages clean. Other Whitman officials agreed with him and saw the film as one more way to show how quality packaging backed up the company's policy of using only the best of everything. Immediately upon the addition of the cellophane overwrap, it was found, sales increased. With such an obvious sales stimulant discovered, the company continued to import the film from France until 1924, when Du Pont began manufacturing it in this country. For several years afterward, according to reports, Whitman continued to be the largest single user of cellophane in the U. S.

Package changes

From the standpoint of design, as well as package construction, the first Sampler package appeared to be so good that for 20 years almost no change was made other than to revise and refine the layout of the "index." But Whitman executives are and have always been perfectionists and as soon as they realized that package technical improvements were

available the improvements were made.

The first improvement in the Sampler came in 1932 when, to add to the realism of the needlework design, the cover-paper stock was changed to one with a linen texture and the lettering and cross-stitch designs were first embossed. At that time, the colors of the designs were brightened, shading was added to the Whitman name and the shade of the "linen" background lightened to emphasize the brighter colors.

A second change—the adoption of package liners and inserts—was a functional as well as a decorative improvement made in the Sampler in 1937.

Heat, moisture, light and air are the great enemies of candy; from these the candy must be protected by its package. In the beginning the company depended upon the paperboard compartments and the crimped paper bonbon cups inside the box, plus the cellophane overwrap, to protect the Sampler's contents. With national distribution, the protection problems increased, so the construction of the set-up box was modified to permit using a paper liner between the outside, hinged box and a new inner tray with the compartments. The loose ends of the liner—printed with a cross-stitch design to carry out the theme of the cover—folded over the top of the candies, thus adding another protective packaging barrier. An insert of the "pillow puff" type, placed over the top of candies before the liner was folded, was also adopted.

From time to time the material of the liners and inserts has been changed as improved materials became available. At present the liners are 50-lb. amber-tinted, printed, embossed, laminated glassine; the inserts are 32-lb., treated, embossed paper.

It is only during the last decade that any noticeable changes in the Sampler's surface design have been made. In 1941 the extension-edge box was adopted, the edges printed a gold color to give the effect of a golden frame around the "sampler." Since new engraving plates were necessary for this improvement, the company took this opportunity to strengthen the colors and the embossing again.

Although the extension-edge box was out for only a short time before World War II interrupted its use, Whitman's received thousands of complimentary letters on the change. These letters influenced the company to begin work in 1944 on a new, modern version of the Sampler for its postwar appearance.

Just as for the first Sampler package, a new needlework sampler was made. But this time the importance of the Sampler's sample was much greater, since all the detail, texture and color of the actual sampler would be faithfully reproduced by process-color lithography. The actual needlework sampler was the "model" for the lithographer's camera and color negatives were painstakingly and skillfully retouched before the engravings were made.

The most familiar individual cross-stitch design elements were carefully retained, but they were given a "modern" look by subtly revising their balance and outline. The three most noticeable alterations were the introduction of gold-thread flecks in the linen background; the "opening up" of the flower basket at the top to give it a softer, freer appearance and the elimination of one blossom from the flower on each side of the basket. The side panels and the bottom were also modernized. The floral wreath on the bottom was enlarged to give more space for listing the contents in the center. Incidentally, the bottom panel is quite as colorful and eye appealing as the top, a fact many customers have commented on. Altogether, 14 different colors can be seen if the package is examined closely.

The modernized Sampler, which first appeared in 1946, is the design of the present package with one modification—the gold flecks in the background were dropped in 1947 and the gold was picked up in some of the individual designs, notably the "threads" of the dragon and the green leaves.

Such are the infinite pains for detail that have made the Sampler package



STUDY IN SUBTLETY of change in this complete sequence of Sampler packages. In 1932, linen-textured paper was adopted and lettering and cross-stitch designs embossed for first time. In 1941, extension edges appeared. In 1946, plates were made from the new Connaughton sampler, with some design elements showing subtle but distinct change. Present package eliminates gold flecks from background and adds gold "threads" to certain "stitches" for realism.

unique. So realistic is the sampler effect achieved by the embossing and the thread effect in the name and other designs that many people find it hard to believe that it is only paper and ink.

Sales and distribution

The Whitman line today contains six other boxed candy assortments and many other packaged candies, including several tinned brands, but the Sampler, as always, leads the way in sales. Every four seconds, every minute of the hour, every hour of the day, every day of the year, a Sampler is sold. That means that more than 7,800,000 are packed annually.

Instrumental in building this tremendous volume are: (1) a well-planned, long-range, national advertising program and (2) a system of national distribution involving a network of 23,000 Whitman retail agents located in every town of over 2,500 population from Eastport, Me., to San Diego, Calif.

Whitman's chocolates are almost as well known abroad as they are in the United States. Especially fond of the Sampler are South and Central America, Puerto Rico, Cuba, Japan and the Philippines.

It is no coincidence that the rise to fame of the Sampler package practically parallels the career of Louis L. McIlhenney, now president of the company. Although he did not actually originate the Sampler, it was Mr. McIlhenney who sensed from the very beginning the power of this package, and his day-in and day-out insistence on pushing it has been a material factor in the rise of Whitman's to its present position of leadership in the prestige package field. To the trade, Mr. McIlhenney is "Mr. Sampler"; he and the Sampler and the Whitman's of today form an inseparable entity.

In 1907 Mr. McIlhenney, who was then sales manager, worked with Mr. Sharp in establishing the sales organization that was to give national distribution of Whitman's candies to dealers directly. At that time a weighty policy decision was made: to keep the candy in its historically accepted place—the retail drug store—rather than establish a chain of Whitman retail stores. Druggists were given franchises and assured of fresh supplies direct from the company. Today the Sampler is found not only in drug stores, but in department stores and at newspaper and magazine stands in hotels and transportation terminals.

One of Whitman's greatest innovations in candy merchandising has been the development of the refrigerated display case. Until a few years ago, national distributors of boxed candies like Whitman's watched their retail sales slump almost to zero during the four or five hot months; business was really good only in cold weather. There was not only the problem of preserving the freshness of the candy during hot weather, but customers simply didn't buy it because they objected to handling soft, sticky chocolate coatings.

With the cooperation of General Electric Co., Whitman's developed an open-top, special refrigerated display case that maintained temperature between 68 and 70 degrees—just right for candy. In 1946 Whitman's underwrote production of these cases and by 1949 more than 9,000 of them had been installed in dealers' stores. The effect was startling. Sales increased as much as 300 to 600% for some dealers. Not only did hot-weather sales revive, but the suggestion of refrigeration seemed to have an effect even in cool weather, conveying the idea that Whitman chocolates were always fresh and cool, always clean to handle and good to eat. The attractiveness of the cream-and-bronze, lighted display case drew many impulse buyers regardless of the weather.

Advertising and promotion

The quality of Whitman's advertising is evidenced by the fact that it has been a continuous advertiser in the *Saturday Evening Post* since 1909 and is believed to be the first advertiser in the *Post* to use a four-color ad, back in 1924. Last year, Whitman's became the first boxed candy manufacturer to take a double-page, four-color advertisement in *Life*.

As far back as 1857, when Stephen F. Whitman bought one-third of a page in a Philadelphia business directory, the company's advertisements stressed quality and taste goodness.

Today's reader of Whitman advertisements finds an even stronger appeal predominating—the appeal of romance. The company's famous slogan, "A woman never forgets the man who remembers," is dramatically visualized by heart-warming pictures of young lovers, the happy wife, the proud mother, the considerate husband, in the ads where the Sampler is illustrated as "the best-known, best-liked box of candy in the world."

This romantic theme was carried over to a new advertising medium when the company became one of the first, in 1948, to use television spot commercials. The happy recipient of a Sampler in these first TV commercials was Rita Colton, so glamorously presented that she became "Miss Television of 1948" and was so

SAMPLER COLLECTION grew up as a company hobby, but in recent years has served as effective promotion. Here it is displayed in Rich's Department Store, Atlanta. Note the candy-box sampler in frame on the table at right.





OTHER WHITMAN boxed candies are almost as well known as the Sampler. All of these brands are carried by Whitman dealers. Set-up boxes are always wrapped in cellophane, with gold foil price-and-contents stickers at left corner. Key-opening cans are used for export shipment; the Land-Sea-Air package (left) was known to millions of servicemen, who received 6,000,000 lbs. during the last war and are still getting it—as well as the Sampler package—overseas.

featured on the Oct. 11, 1948, cover of *Life* magazine. Miss Colton posed again especially for the Sampler cover illustration on this issue of MODERN PACKAGING.

Any discussion of the advertising and promotion of the Sampler would be incomplete without mentioning Whitman's other famous trademark—the cross-stitch messenger boy who carries a Sampler box under his arm. This trademark, registered in 1915, just three years after the Sampler, has been heavily and successfully promoted. Anyone who has passed the Whitman plant at night vividly recalls the electric sign on the top of the building that is a giant replica of the messenger boy. He appears on the front of the refrigerated display cases, in all the Whitman ads and displays and even as a solid chocolate candy in the Sampler. Whitman representatives' business cards are die cut in the shape of the messenger boy and printed in four colors.

One of the most effective promotions for Whitman's Sampler actually started as just a company hobby. For some 15 years the company has been collecting early American samplers. Part of the collection, which now numbers 350 samplers, was purchased from the famous Gillingham group in Philadelphia; others have been obtained from art and antique dealers throughout the country. It is reported that a Whitman board of directors' meeting was once interrupted in order to send in the news that the owner was willing to sell one of the rarest samplers now in the collection—a masterpiece worked by Mary Wiggin in pink thread against a black background.

Part of this collection is permanently exhibited at Whitman's retail store on Chestnut St. in Philadelphia, but most of the samplers had never been displayed publicly until last fall, when the collection was assembled into traveling exhibits for department stores. These exhibits have revived interest in needlework, as well as stimulated sales of the Sampler.

In addition to its heavy national advertising budget, Whitman is a firm believer in the value of point-of-sale display materials and goes all out to provide dealers with window and counter displays. Designed by the company's advertising agency, Ward Wheelock Co., many of these displays are full-color lithographed reproductions of original paintings done by such famous illustrators as Feodor Rojankofsky and Jon Whitcomb especially for Whitman.

Whitman's other famous packages

The Land-Sea-Air package that Whitman brought out for the Armed Forces in World War II occupies a special niche in the heart of practically every man who saw overseas service. Special allocations of scarce tin were made to the company so that it might package over 6,000,000 lbs. of the chocolates in these metal, key-opening cans which were shipped to the Army overseas forces between 1942 and 1945. The Navy and Marine forces also received the Land-Sea-Air packs in tremendous quantities. Letters from military personnel to the company relating the fantastic adventures some of the cans had would provide a bookful of exciting war stories. Today large shipments of Whitman's candies, including the Land-Sea-Air and the Sampler, are made regularly to supply occupation forces in all parts of the world.

Other well-known Whitman boxes are the Fairhill (which was introduced in 1932), the Prestige, the Philadelphia, the Penn Wynn, the the Antique and the new Fruits and Nuts. Growing tremendously in popularity is the Antique, an assortment which was brought out in 1947 in a package designed as a lower-priced companion to the Sampler.

While the Sampler, at $2 a pound, is the most expensive assortment in the Whitman line, the quality is exactly the same for all of the candies, the only variation being in the assortment, size and number of pieces, which of course have a bearing on packing costs.

Its 108-year-old reputation for quality is the company's most zealously guarded possession. Just as the founder in 1842 imported rare fruits and nuts from foreign lands, the company today reaches to all parts of the globe for the very finest of ingredients for its candies. Cacao beans are imported from Trinidad, Ecuador and Venezuela and are blended, roasted and pressed right in the Whitman plant; vanilla beans are brought up from Mexico; the peppermint oil comes from mint grown to Whitman's specifi- (*Continued on page 172*)

MP DESIGN



Pliofilm bag with drawstring

E. W. Barr Co., Winchester, Va., uses this printed Pliofilm drawstring pouch—practical from the user's standpoint and appealing to the consumer—for marketing its "Rose of Virginia" apples. The bag, which also has many re-use advantages, has a paperboard collar through which a ribbon string is drawn to form a closure. The drawstring becomes a handle for carrying the package and acts as a reinforcing ring around the top of the bag to prevent tearing at the collar during filling. Closing of the bag prevents spillage and pilfering, while the top rigidity allows for easy opening. Bottom corners of the bag are cut off and heat sealed, eliminating unsightly ears at the bottom. This construction is said to reduce stress at the point of greatest strain. The stress is taken up at three points in each section of the triangular corner instead of at two points as in a conventional right-angled corner.

CREDITS: *"Zip-Lok" bag, Milprint, Inc., Milwaukee, Wis. Pliofilm, Goodyear Tire & Rubber Co., Akron, Ohio.*

Packages that merchandise home-movie films



With the growth of competition in the field of home motion picture films, Official Films, Inc., New York, is having its products placed in a prominent display position in camera and department stores with these attention-getting, "two-faced," folding cartons, which have resulted in a 30% increase in consumer inquiries at point of sale. Since motion pictures cannot be sampled as are phonograph records, the package becomes the chief selling tool when on display. Front and back of each carton are printed with a different "still" from the film. In the Abbott & Costello series, for example, there are six films. Six cartons displayed show 12 different scenes from the films. Cartons for "This Land of Ours," when arranged side by side, form a complete map of the United States; those for "This World of Ours" form a map of the world.

CREDITS: *Design, Arnold Shaw, New York. Cartons, Acme Folding Box Co., Inc., New York.*

HISTORIES

Bottle has ice compartment

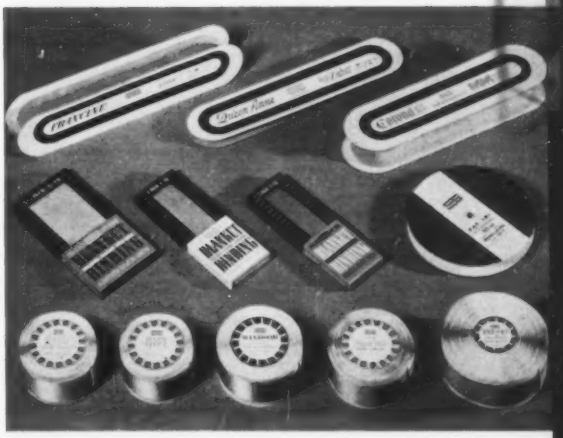
A new method of chilling a wine bottle without the bother of using a separate ice bucket or diluting the wine by adding ice has been developed as part of the exclusive decanter-type bottle for Manischewitz Malaga, Concord and sweet grape wines produced by Monarch Wine Co., Brooklyn, N. Y. The gracefully shaped decanter, made of imported hand-blown glass, is designed with a deeply inset "pocket" that opens from the back of the bottle opposite the pouring spout into which ice cubes can be put to chill the wine. The "pocket" is molded into the decanter far enough so that eight ice cubes can be inserted. After the ice has been added, the opening is plugged with a raffia-wrapped cork that blends right in with the rest of the decorative raffia wrapping around the decanter so that its existence is perfectly disguised. Similar raffia-wrapped corks close the pouring spout and mouth of the bottle. The decanter holds a half gallon and is being merchandised in department and liquor stores.



Ribbons that tell a brand-name story

New, smartly styled packages and put-ups, planned to aid sales personnel in ordering, stocking and displaying Century Ribbon Mills' department-store line of ribbons, have been designed to give greater emphasis to brand and company name. A recognizable decorative ribbon motif composed of interwoven "C's" that are half sections of the initial, as it was designed for the modernized Century trademark cartouche, are used as the dominant design theme. Cartons with large windows, restyled for the blanket bindings, enhance the color and texture of the binding. A color code has been worked out with the secondary color of the package to denote the quality grade of items. Especially interesting is the labeling of the imported velvet ribbon reels.

CREDITS: *Design, Koodin-Lapow Associates, New York. Window cartons, Robert Gair Co., Inc., New York. Labels, John Horn Co., New York.*



DESIGN

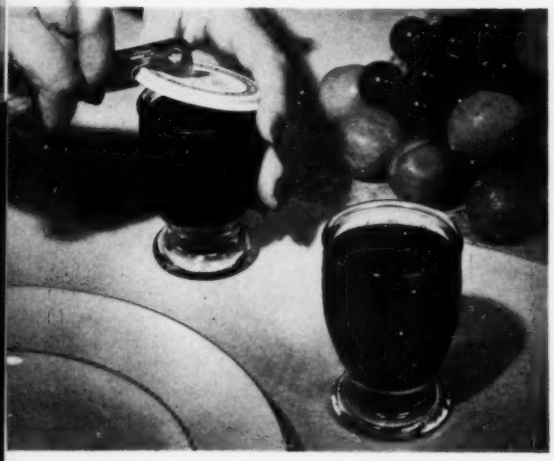
New West Coast family of beet sugars



Spreckels Sugar Co. is the first beet-sugar producer on the West Coast to offer consumers a complete line of packaged "specialty" as well as granulated sugars in a family-designed, color-coordinated series of packages. The sugars are making their first appearance in 1- and 2-lb. paperboard cartons whose basic design is repeated on the redesigned paper bags of 5- and 10-lb. fine granulated. In addition, Spreckels is bringing out a new 2-lb. bag of fine granulated. To provide consumers with quick identification of the sugar type by the package, each type has its own distinguishing color—green for superfine, brown for the golden brown sugar, rose for cubes and blue for powdered and granulated (the latter is packed only in bags). The trade name, sugar type and diamond-shaped trademark are printed in a dark shade of the identifying color and a light shade is used for the wide bottom border.

CREDIT: *Cartons, Paperbox Corp., Oakland, Calif.*

The wine glass is the consumer package



With its new wine-glass package, Roma Wine Co. believes it has solved one of the oldest and toughest problems in wine merchandising—the confusion about the "correct" wine glass and the consumer's hesitancy generally about wine service. The smartly styled, footed tumblers, capped with metal vacuum-tight closures, are designed as all-purpose wine glasses that the housewife can readily re-use. Holding 3 oz., the glasses are thrifty, too—retail price is between 19 and 22 cents apiece, depending upon state taxes—and there is no worry about "leftovers." The tiny label is easily removed when the glass is opened for serving. Roma is offering six varieties of California wines in the new packages: port, sherry, burgundy, sauterne, muscatel and claret. While the new wine-glass package is slated for promotion as a take-home package, it offers merchandising advantages to bars and restaurants.

CREDITS: *Tumblers, Glass Containers, Inc., San Francisco, Calif. Closures, White Cap Co., Chicago.*

HISTORIES

Cellophane bag with heat-sealed pocket

To keep the ribbon, seals and gift cards separate from the decorative wrapping paper in a new consumer package for gift wrappings, Dennison Mfg. Co. devised an ingenious method of adding a pocket to the square transparent-cellophane bag used as the ensemble package. A separate band label of heat-sealing cellophane, 3 in. wide and printed in blue and gold-colored inks by the company, is automatically heat sealed to the cellophane as it is fabricated into the bag. One sealing line runs parallel to the center seam of the bag, forming one side of the pocket, and another is perpendicular to it to close off the label end of the band from the pocket section in which the cards, ribbon, etc., are put. After the various items of the ensemble are inserted by hand, the end of the bag is heat sealed. When displayed, each piece is visible.



CREDITS: *Cellophane, E. I. Du Pont de Nemours & Co., Inc., Wilmington, Del. Bag fabricating machine, Simplex Wrapping Machine Co., Oakland, Calif.*

Vacuum-packed bacon for long-time storage

A new application for the shrink-type vacuum package (see "New Cry-O-Vac," MODERN PACKAGING, March, 1948, p. 115) is for sliced bacon in 5 lb. units marketed by Fiddler's Creek Farm, Titusville, N. J. The bacon is sliced and wrapped in cellophane in 1-lb. units. Five of the cellophane-wrapped units are then packaged in the protective plastic bag, the air exhausted and the package sealed against dehydration for long-time preservation under refrigeration. The plastic film, a vinylidene-type copolymer claimed to be odorless, tasteless and flexible at low temperatures, is extruded in tubular form and converted into bags with one end open and the other electronically sealed. On application of heat, they shrink to a skin-tight fit. Identity is provided by a label spotted in the center before application of the shrink-wrap.



CREDITS: *"Cry-O-Vac" package, Dewey & Almy Chemical Co., Cambridge, Mass. Labels, Robinson Tag & Label Co., New York.*

Farm-

The brilliant synthesis of true-as-life product pictorialization, impact-plus-brand-name identification, and great sweeps of white space used with effectiveness to enhance these two design elements make the new frozen-food labels of Seabrook Farms, Bridgeton, N. J., one of the outstanding package redesigns of 1949.

Although not all of the waxed-paper overwraps for all 28 products in the Seabrook line are yet off the printing presses, the sales figures for the first seven products distributed in the redesigned wraps give a clear indication of how sales appealing the new labels are.

During November, 1949, when Seabrook's frozen broccoli first appeared in the redesigned wrap, sales soared 300% over the company's total broccoli sales for the previous three months combined, according to C. Courtney Seabrook, vice president, and the percentage of increase is holding at that high level. In rapid succession Brussels sprouts, cauliflower, cut asparagus, peas, Fordhook lima beans and sliced strawberries appeared with the new label and the company's sales on each are doubling and even tripling in the eight Eastern cities where they were introduced, Mr. Seabrook says.

The most impressive change—and a radical departure from the previous label which emphasized brand name—is the use of striking color product illustrations silhouetted as the wide left border design of the new overwrap. Company officials credit a good deal of the sales increases to these silhouettes.

Reproduced from color photographs



LIFE-SIZED product illustrations, silhouetted against a white background, counterbalance the importance of the brand-name logotype and printed copy of the new Seabrook labels. Rotogravure reproduction of actual product photographs in five and six colors achieves an ultra-realistic appearance. The paper overwraps are coated with a high-gloss, hard-finish-type wax.

"USE" RECIPES on the back panel of the new overwrap are an innovation. Each of six different recipes developed for each of the 28 products in the Seabrook line is printed with its number so that the shopper can easily pick out new serving ideas.

fresh labels

SEABROOK FROZEN-FOOD SALES INCREASE

WITH PRODUCT PICTORIALIZATION IN FULL-COLOR ROTO ON WAXED PAPER

of actual product samples by five- and six-color rotogravure, the silhouettes contribute the pictorial element necessary for that "first row" display position. The unusual use of white space as a background to set off the product illustrations was purposely adopted to give the fruits and vegetables the appearance of being placed on an immaculately clean porcelain counter—this illusion being increased by the type of high-gloss, hard-finish, wax coating used on the wrapper.

Seabrook Farms—which produces an estimated 25% of the total of quick-frozen vegetables consumed in the U. S. annually—began planning the new labels with the designer a year ago so that its 1949-50 pack would be in the redesigned packages.

The first step in the redesign was the establishment of the basic wrap design featuring life-sized product illustration, the placement of printed copy, the brand identification, etc. Then as each product during the growing season reached the peak of its perfection, the color photographs of the actual products were taken.

Working on a tight "shooting" schedule to capture the product's field freshness, the photographer and designer worked right on location at the world-famous Seabrook plant in Bridgeton. Mr Seabrook himself gave the final approval to the samples that were as representative as could be found in all of the company's 50,000 acres. Where the product would permit, a three-color camera was used. When a product was apt to lose its "bloom" under the intense heat and glare of the lights and utmost speed was needed, full-color Kodachromes were taken.

The retention of the familiar brand-name logotype achieves a continuity between the old and new Seabrook Farms labels. The same special Seabrook blue and gold colors are retained on the front panel. Set in a solid blue rectangle, the position of the logotype assures immediate brand recognition. An ingenious treatment of product name and company slogan with logotype ties these three elements together in a logical sequence. The product name, printed in red, appears immediately above the logotype with the word "from" as the connecting link; the logotype is in turn followed by the slogan. Thus, reading down the right-hand side of the front panel, for example, "Quick-Frozen Baby Lima Beans from Seabrook Farms 'Where the finest of foods get the fastest of freezing—to capture peak flavor.'"

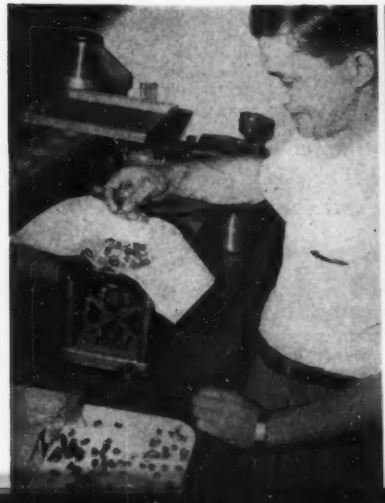
An illustration of a farmer—the one pictured in the company's advertisements as "That man from Seabrook Farms"—appears on the top panel.

The new Seabrook wraps offer the shopper a whole series of recipes on how the contents may be used—a copy technique well established in processed-foods packaging, but not as common in frozen foods. For the new labels the company developed and kitchen tested a series of six different use recipes for each product. One recipe is numbered and printed on the back panel of each package.

Both paperboard folding cartons and metal-end fibre cans, used for some of the quick-frozen fruits, are overwrapped with the redesigned labels. Overwrapping and sealing is done automatically on wrapping equipment with electronic color control to assure that each label is properly positioned for application.

CREDITS: *Design, Abril Lamarque, New York. Color photography, John McSherry, New York. Labels and paperboard cartons, Marathon Corp., Menasha, Wis. Metal-end fibre cans, American Can Co., New York.*

COLOR REPRODUCTION is achieved with samples of mixed vegetables measured in the correct proportions for photographing in color (left). Working directly at the freezing plant, the designer and the photographer matched samples of the product with color-scale cards and the label layout (as shown at right) to capture a life-like reproduction of the product.





No more soilage due to handling!





Best way to tell a bedtime story

now all textiles look better, sell faster, keep cleaner,

ADD textiles to the long list of products now enjoying the matchless protection and sales appeal of rugged, tough **Pliofilm** wrapping!

Leading mills are now packaging pillow cases, sheets, towels, tablecloths, shirts, pajamas, in this magic Goodyear film, for these very sound reasons:

Pliofilm's *superior strength greatly reduces the breakage problem, prevents soiled goods or returns, assures the purchaser clean, sanitary merchandise.*

With **Pliofilm,** *no intermediate, outer protective packaging is needed. Thus* **Pliofilm** *packaging frequently cuts your costs!*

Pliofilm *saves space and packing charges; one shipping case may hold as many as ten to twelve dozen packages.*

Pliofilm *prints clearly. Puncture-resistant, it*



wrapped in puncture-resistant, transparent Pliofilm

Good things are better in *Pliofilm*

protects label against tearing or defacement. Your brand name and message always reach the customer.

***Pliofilm** is easily adaptable to packaging machinery.*

If you're packaging textiles, get the full story on this latest **Pliofilm** success now. Write:

Goodyear, Pliofilm Department,
Akron 16, Ohio.

3-way protection against air, moisture, liquids

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Pliofilm, a rubber hydrochloride—T.M. The Goodyear Tire & Rubber Company

We think you'll like
"THE GREATEST STORY EVER TOLD"
Every Sunday — ABC Network

ARMOUR'S CLEANSER

IT'S A BRIGHT, NEW COMPETITOR IN THE FIELD OF HOUSEHOLD CLEANSERS AND IT MARKS THE INTRODUCTION OF A CLEVER PACKAGE FOR MULTIPLE-CAN SALES

PHOTOS COURTESY ROBERT SIDNEY DICKENS.



FRESH, CLEAN appearance of the Armour package for this new cleanser product is heightened by lithographing the metal sifter top of the fibre can in the same yellow used, with dark green and white, on the varnished wrap-around can label.

Armour & Co. makes its entry in the household-cleanser market with a brightly designed composite sifter can which marks some packaging innovations in this field, including the use of an ingenious new paperboard "can band" which holds three cans together simply but securely to promote multiple purchases. A completely new formula for the cleanser was developed in Armour laboratories and thoroughly tested prior to its introduction on the market. Armour retained a Chicago package designer to create label designs a full year in advance of the product's market appearance.

Armour wanted fresh-appearing label designs that would help reflect the fact that the cleanser utilized a completely new formula and was, indeed, a new product. Display value was considered of utmost importance and it was required that the labels give a stand-out performance at the point of sale on grocers' shelves.

Label design

The designer's assignment was both to create label designs for the household-cleanser cans and to project these designs for use on the three-can band and on a combination shipping-display case. His choice of colors for the label included dark green, white and bright yellow. Detailed color studies by the designer preceded the final choice of colors.

Armour's well-known logotype was emphasized in the label, appearing in reverse white on a dark green panel. The use of Armour's logotype in the label design was of particular importance, since this is the first time that a product of Armour's soap-works division has featured it. The new household cleanser is immediately identified as a member of the big over-all family of Armour products.

Dozens of color tests were made by the designer to develop a bright yellow for the background which would project plenty of cleanliness while reflecting the product claims made

for the cleanser: "Sudsing, scouring—double action."

The back panel of the label was designed to give the consumer helpful product information. It was illustrated to demonstrate the various uses of the cleanser. Copy on the back panel includes specific directions for use.

A simple, straightforward approach characterizes the treatment of the front panel of the label. There is the suggestion of an arrow motif, pointing from the Armour logotype down to the product name, emphasizing that it is "*Armour* Household Cleanser."

Construction of can

The can is the spiral-wound fibreboard construction with metal ends, customary for powdered cleansers, but a striking innovation lies in the fact that the top and bottom of the can are lithographed in color—matching exactly the yellow used generously on the label itself. It is felt that this treatment lends added distinction to the cleanser container and creates added attention value. It also helps provide a more colorful and therefore more acceptable container in the consumer's home. The top has scored punch-out holes for sifting. Armour fabricates the cans in its own plant.

Sixty-pound base paper was used for the labels, which are given a clear waterproof lacquer coating for gloss and protection.

To introduce the cleanser, Armour decided to offer three cans for the price of two plus one cent. The company thereupon took advantage of a new development in sleeve-type packaging to bind the three cans together into one very attractive take-home package. Known as the "can band" (for which patents are pending), the sleeve package neatly holds together the three cans. Because of the simple but ingenious locking action of top and bottom flaps at each end of the sleeve, the cans cannot slip or fall out during handling.

The pre-glued can bands are shipped by the supplier to Armour folded flat. The band is made of fairly stiff board and the rounded flaps at each end have a natural spring action which causes them to lock into the rim of the two outside cans, top and bottom. The third can is, of course, imprisoned in the middle. To release the cans it is necessary to break the band at the glue lap.

The great advantage of this type of multiple packaging is that it provides plenty of display space on the band for the "special" offer while displaying half the surface of each of the two end cans for positive product identity.

Armour is among the first to adopt the can band. Its advantages are:

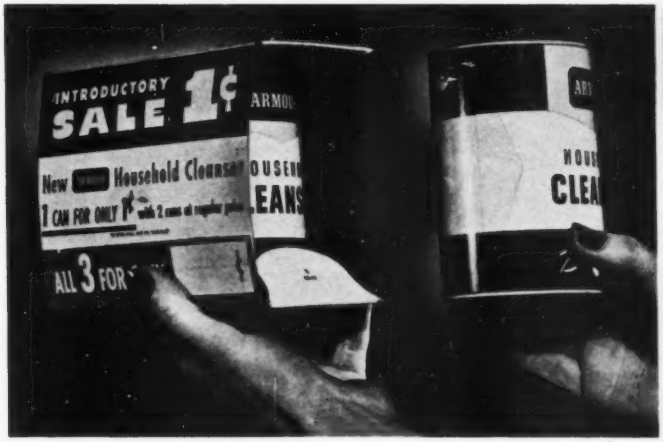
1. Less paperboard is required to house the cans together than would be required in other types of multiple packaging used in a comparable way.

2. The wrap permits excellent label visibility so that the product identity created by the label designer is not lost.

3. It provides an excellent merchandising tool at point of sale. It can be applied as a multiple-sales tool to any canned product.

The can label design is blown up on a combination shipping-display case. The label design colors are repeated. A corrugated stock is used for the shipping case which, at the grocers' discretion, becomes a display case when cut along dotted lines.

CREDITS: *Complete design program, Robert Sidney Dickens & Associates, Chicago. Can bands, Container Corp. of America, Chicago. Labels, Magill-Weinsheimer Co., Chicago. Shipping cases, The Hinde & Dauch Paper Co., Sandusky, Ohio.*



TABS LOCK with the rims of the two end cans, top and bottom, to hold the three cans securely with maximum display value. This effectively designed "can band" package is adaptable for any canned product.



CANS ARE RELEASED by tearing open the can band at the glue flap. The band repeats both the colors and the design motif of the can label.

Packaged fine art MERCHANDISING OF POPULAR-PRICED

REPRODUCTIONS LIKE PHONOGRAPH RECORDS IS OBJECT OF NEW PACKAGE VENTURE

When F. W. Woolworth & Co. ties in a promotion of popular-priced Van Gogh reproductions with the current exhibition of this artist's work at the Metropolitan Museum of Art, and Rexall drug stores feature full-color illustrated books on art, it is not suprising to find that the medium of the package has at last been adopted to bring fine reproductions of famous paintings to the masses in a manner similar to the way packaged phonograph records have brought good music to the millions.

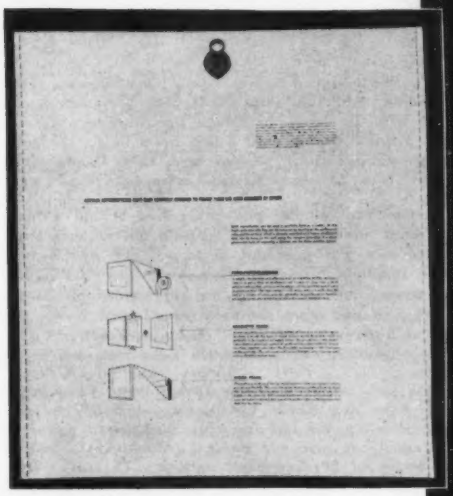
The first such project is just being launched on a large scale by Artifax, Inc., of Chicago, whose presentation consists of 20 full-color reproductions of classic and modern masterpieces packaged for impulse selling from special display units in department stores, book and art shops, furniture stores, gift and music shops. During the Christmas holidays these packaged art reproductions were introduced in nearly 200 retail outlets throughout the country. It marks the entry of packaging into a new field.

Each reproduction is mounted on a mat measuring 17½ by 19½ in. and packaged in a folio of its own made with a perforation along one side on the back that may be torn off for hanging or framing—and a ring tab ready for hanging up the picture on the wall if desired.

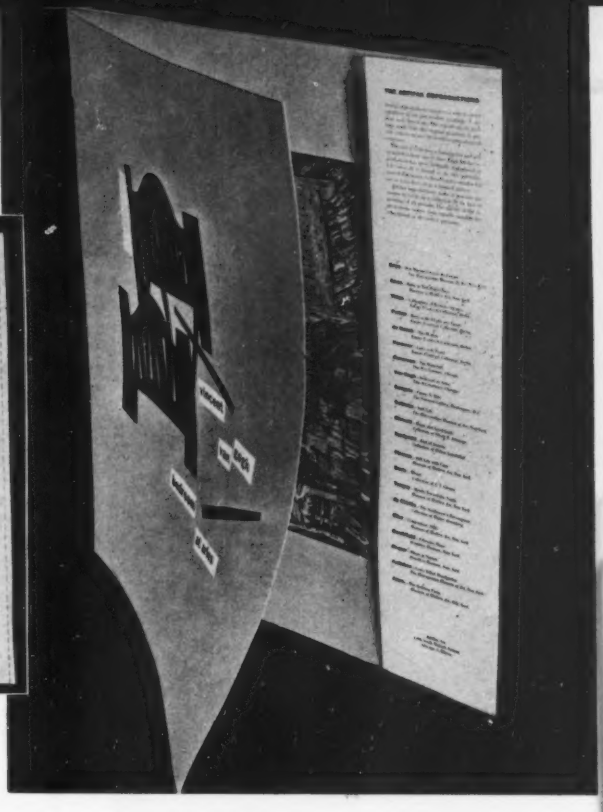
COLORFUL COVER folios give the "stop-look-and-buy" impulse when this collection of new art packages is arranged in racks and on aisle stands. Each folder is aimed to suggest the spirit and style of the artist whose work is reproduced. The cover folders are removable, or may be kept for storing the mounted reproductions in reference libraries.



DESCRIPTIVE DATA about the artist and the reproduction in each folder are printed on inside cover. Short flap promotes other reproductions offered by Artifax.



PERFORATION permits removal of folder, leaving mounted picture ready to hang up unframed by tab at the back, or ready for framing.



Each packaged folio is specially designed by a leading artist to supply the same "stop, look and buy" impulse that is present today in the use of colorful book jackets or albums for phonograph records, according to Artifax.

In each instance the cover folio design is aimed to reflect the spirit and style of the painter whose work is reproduced. The South Sea flavor of Gauguin's work is suggested by a cover design incorporating a ratan weave ground in tones of golden brown, a single tropical flower and brush-stroked lettering in burnt orange. An abstraction in black, red and white against a gunmetal gray background is the cover interpretation for the surrealism of Tanguy's "Slowly Toward the North." A two-dimensional sailing theme is employed for the cover of a Winslow Homer reproduction. Because the cover folios may be detached from the pictures, they are suggested for re-use on screens, lampshades, scrap baskets, etc.

Inside printing of the folders, facing the reproduction, includes a descriptive essay about the artist and his work, with specific comment about the particular masterpiece packaged. The opposite fold-in flap carries promotion about Artifax reproductions and a listing of the 20 already on the market.

Complete instructions for framing are printed on the back of the folder, and light or dark wood frames of the exact size to fit the mounted reproductions are being made available to purchasers.

"Public interest in art is at an all-time high," says Robert Bender, president of Artifax, "yet the sale of art reproductions has remained until now a relatively small business.

"We believe our packaging program makes it simple for the dealer to show art reproductions and for the public to buy them. The sale of art books, attendance at museums and at adult educational courses are at an all-time high. Our problem today is largely one of calling good art to the attention of the largest number of people. We believe we have accomplished this by means of our portfolio packages."

The packaged reproductions range from old Italian masterpieces of the 15th century to the modern abstractionists.

The present collection includes the work of Piccaso, Miro, Tanguy, Stuart Davis and Kuniyoshe. Italian and Dutch masterpieces are represented by the work of Titian, Vermeer and de Hooch. Impressionists and romantic primitives of the late 19th century are represented by Cezanne, Van Gogh, Gauguin and Rousseau.

Popular prices ($2.95 for each packaged reproduction) will, it is believed, encourage many persons to build up a library of Artifax reproductions for reference purposes. In such instances the folios may be kept intact for storing the pictures. Others will purchase the pictures for hanging framed or unframed. Not only are home owners the objective of this packaged product, but museums, libraries and art education centers may purchase the reproductions for the building of reference exhibitions of art work.

CREDITS: *Cover designs, George Nelson, New York. Folders printed by Gartner & Bender, Chicago.*

MODERN PACKAGING



1 A carton designed to look like a book houses a small reading light that clips right onto a book. Eagle Electric Mfg. Co. clamps its "Magic Booklite" on a die-cut, scored, printed display card which nests inside the side-opening folding carton. Display card, Merit Display Card Co., New York. Carton, Service Carton Co., Brooklyn.

2 Cartons with picture panels recessed behind acetate-covered windows give a realistic three-dimensional effect to new gift packages developed for five Brown-Forman Distillers' products. Scenes representative of the brand names and trademarks are reproduced on panels recessed into the space normally unoccupied inside the carton around the bottle neck. Cartons, Bradley & Gilbert Co., Louisville, Ky., using Du Pont acetate.



3 Lane Ltd., 60-year-old New York tobacco firm, introduces its new Lords low-nicotine cigarettes in distinguished gray, gold, red and white packages designed to appeal equally to men and women. Flat tins of 50s and set-up boxes of 20s are hand packed. The inner foil-backed paper and box paper are embossed. Lithographed metal box, Continental Can Co., New York. Paperboard box, Imperial Paper Box Corp., Brooklyn. Labels, American Label Co., New York.



4 Altyme Products, Inc., New York, chooses a modern design treatment for its new package of Shampoo-Straight for straightening over-permanented hair. The cover, printed in maroon and gray, features the trade name, styled to suggest the product result. Boxes, Burmond Printing Co., Inc., New York.

5 Paper packaging for baked beans has been successfully introduced in the New England area by Lonsdale Bakery Co., Saylesville, R. I., for its famous Arnold baked beans. The round paper containers are plastic coated and custom printed in red. Containers, Sealright Co., Inc., Fulton, N. Y.

6 This toy tool chest package, complete with a snap-clasp closure, is made of corrugated board with an orange-colored linen finish. The tools nest securely in a die-cut, four-compartment separator for protection in shipment and storage. Dealer acceptance is reported excellent because of the display appeal and handling convenience of the package. Container, The Hinde & Dauch Paper Co., Sandusky, Ohio.





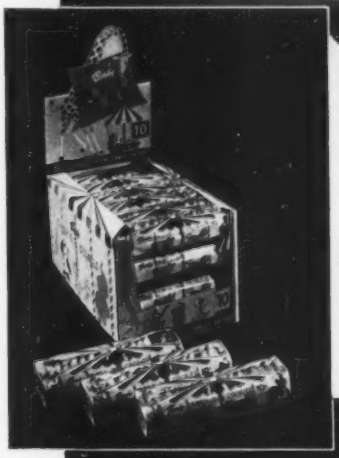


PAGEANT

7 A Dutch cupboard is the design theme for Spice Island Co.'s new gift kit of related spices, flavorings and wine vinegars. The cupboard section (box bottom) is paperboard covered with a wood-grained paper. The box cover has transparent acetate window panels. A folding deck insert may be left in permanently if cupboard is to be hung. Design, Jerry Jolley, San Francisco. Boxes, Fleishhacker Paper Box Co., San Francisco. Cellulose acetate (Lumarith), Celanese Corp. of America, New York. Wood-grain paper, Charles W. Williams & Co., New York. Bottles, Owens-Illinois Glass Co., Toledo, Ohio.



8 Candy-Dot Cookies—new 10-cent snack package of cookies brought out by Berke Bakeries, Inc., Brooklyn—are packaged in paperboard trays with four-color printed cellophane overwraps. The gay circus design is repeated on the display. Cartons, Blum Folding Paper Box Co., Inc., Brooklyn. Wraps, Mosstype Corp., Brooklyn, and Cellu-Craft Products Corp., Flushing, N. Y. Cellophane, E. I. du Pont de Nemours Co., Wilmington, Del.



9 Home-style hot peppers, packed by G. Capaldi & Son, Inc., Watertown, Mass., are cured right in the glass jars using a special formula developed by the company. Appearing after two years of experimental pack tests, they are packed in plain round jars with lug-style decorated closures. Jars, Anchor Hocking Glass Corp., Lancaster, Ohio. Closures, Crown Cork & Seal Co., Baltimore, Md. Labels, Rochester Lithographing Co., Rochester, N. Y.



10 No more tangled, snarled coils for fishermen who buy the new transparent-plastic dispenser package Glen L. Evans, Inc., Caldwell, Ind., uses for nylon leader material. The package consists of two circular sheets of 0.010 acetate bonded together in the center to form a flat, reel-like spool. The outer edges, which meet in a tight seam, open easily. Acetate sheet (Kodapak I), Eastman Kodak Co., Rochester, N. Y.

11 Quicker coloring and recipe measuring result from The Best Foods Inc.'s new "Measure Pak" package for its Nucoa brand uncolored margarine. Instead of a solid print, the margarine is cut into four 4-oz. bars. A table of equivalents—one print equals a half-cup—and coloring instructions are printed inside the carton. Cartons, Marathon Corp., Menasha, Wis. Parchment wrap, Paterson Parchment Paper Co., Bristol, Pa.





Greenhouse



FULL-COLOR REPRODUCTION on side of cellophane wrap shows flower to be expected if you "just add water." Front view (left) shows how clear cellophane windows admit light to bring sprout up from foil pot through center hole in paperboard frame. Directions explain that when sprout reaches dotted line, plant can be removed from package.

Hewett and Marion Mulford—those two Lebanon, Ohio, brothers who have established a reputation as the most enterprising packagers in the bulb - and - flower industry* — have scored once more. This time they have introduced an ingenious package that looks and actually serves as a miniature greenhouse for prepotted bulbs. Horticultural know-how is combined with this dramatic, colorful package to take the mystery out of how to grow flower bulbs successfully indoors.

Indoor growing of flowers from bulbs is not new—the Hewett P. Mulford Co. has promoted it for years as a way to sell its bulbs all year around. But by potting their selected tulip, hyacinth and daffodil bulbs and small azalea plants, and packaging the potted bulbs in a cellophane package designed so that the bulb can be left in it until it sprouts to a "safe" height (indicated by a dotted line right on the package), the Mulfords have what they call a foolproof method that any flower lover can follow with good results.

The "greenhouse" containers are a striking example of both eye appeal and function in a package.

The bulbs are prepared at the Mulford farm in small pots filled with peat moss. These pots—a marvel of ingenuity—consist of a die-cut segment of heavily waxed kraft board covered with a thick, hard-tempered aluminum foil, either green or gold in color. The bottoms are heavy aluminum foil disks. The pots are formed at the Mulford plant by crimping bottoms and foil-covered sides together on machines that have been specially designed. Filled pots are simply placed in one-piece, die-cut, prescored and preglued frames of kraft board which have a reinforcing cross member just above the pot with a die-cut opening through which the sprouting plant may grow. The frames are shipped by the supplier knocked down, and can be set up and the pot inserted in a single motion.

A single-cut score line out to the edge from the hole facilitates placing the potted bulb and makes it easy for the plant to push this part of the frame away in case the sprout, when it starts to grow, misses the primary target.

At the plant, the filled frames are carried by conveyor to a wrapping

* See "Beauty in Bulbs," MODERN PACKAGING, April, 1949, p. 124.

THE MULFORDS COME UP WITH ANOTHER SPECTACULAR IDEA: A WINDOW PACKAGE THAT SPROUTS A FLOWER BULB RIGHT IN THE FLOWER POT

machine where the printed cellophane overwrap is automatically applied and sealed. The wrap is positioned exactly in the correct spot around the paperboard frame through the use of an electric-eye control.

Because their biggest market for bulbs is in the chain variety stores, the Mulfords designed the package to do a self-selling job on the store counter.

The plant in full bloom, which is reproduced in gorgeous color from an actual photograph, is printed on one side panel of the overwrap against the bright green background. This not only shows the customer what he will grow, but adroitly conceals the unattractive frame that would hide the plant anyhow. On the two sides where the pot is unobscured by the frame, the transparent panels are printed with white lines in a windowpane effect to carry out the greenhouse design theme. Large areas of the cellophane thus are left clear to admit light to the sprouting plant. Outline illustrations of a greenhouse and a cartouche of green with "Mulford's Miniature Greenhouse Potted Bulbs," printed in reverse-white lettering, emphasize the theme.

Directions for growing and an explanation of the function of the package are printed in white lettering on the side panel opposite the flower illustration. About two-thirds of the way up this panel there is a horizontal dotted line; Step One of the four-step directions reads, "If plant has not reached dotted line when purchased, leave in miniature greenhouse package until this height is attained," followed by an arrow pointing to the line. Other direction steps explain how to care for the plant once it is removed.

Selecting bulbs carefully, growing them under minutely controlled conditions and packaging them with a dramatic sense of sales appeal has built the business of Hewett P. Mulford & Co. into a stand-out success in its field. The Mulfords aren't quoting figures . . .but they wear satisfied smiles when sales increases are mentioned.



COMPONENTS of package are simple, folding, one-piece paperboard frame; foil-and-waxed-board pot with bulb in peat moss; printed cellophane overwrap, applied automatically.

CREDITS: *Printed cellophane overwraps, Shellmar Products Corp., Mt. Vernon, Ohio. Die-cut frames and boards for flower pots, Gardner Board & Carton Co., Middletown, Ohio. Aluminum foil, Reynolds Metals Co., Richmond, Va. Overwrapping machine, Hayssen Mfg. Co., Sheboygan, Wis.*

Pre-packaged bulbs sold with glass vases

Another example of promotion of flower bulbs to grow indoors during the bleak winter months is the compact, ready-to-mail gift package developed by Bulbs, Inc., New York. It contains top-quality hyacinth bulbs imported from Holland, especially designed glass bulb vases and a booklet that gives complete and explicit growing instructions.

To go with the pre-packaged hyacinths, Bulbs, Inc., provides dealers with an eye-catching silk-screened display card, illustrated here, which shows the colorful hyacinth in bloom and features an actual sample of the vase. One display, measuring 11 by 14 in., is included with each shipping carton of the pre-packs so that the dealer can build a spot display of the bulb pre-packs around a card.

The company offers the hyacinth packages in two sizes: a small one with just one bulb and vase that retails for $1, and the larger, ready-to-mail size that contains two bulbs and two hand-blown vases retailing for $4.75. The mailer cartons are of corrugated board with an inner, nesting carton to cushion the fragile vases from shock during shipment. The bulbs are put in a separate, center compartment. Illustrations of the hyacinths in vases, printed in green ink on the carton sides, add to their display appeal.

CREDITS: *Display, Pied Piper Press, New York. Cartons, A. Fleisig Sons Folding & Set-Up Paper Box Co., New York, and Industrial Container Corp., Brooklyn, N. Y.*

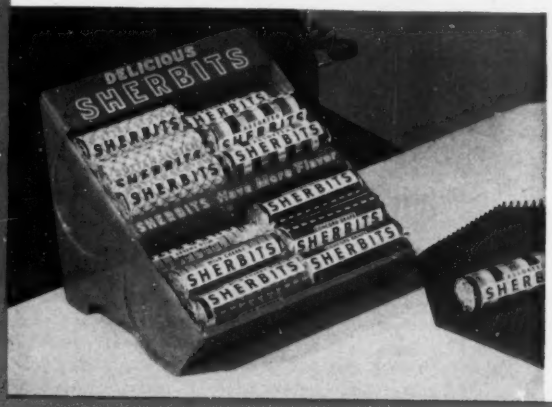


DISPLAY CARD for promoting pre-packaged hyacinths features actual sample of vase enclosed.

DISPLAY



Whitehall Pharmacal Co. has distributed to dealers thousands of these compact metal counter merchandisers for Kolynos tooth paste and powder designed from a utilitarian point of view. They offer self service for the consumer, whether a new buyer making an impulse purchase or a steady customer—all sizes are stocked. Its ease of servicing and permanency appeal to retail dealers.



F. & F. Laboratories, Inc., has adopted this red polystyrene counter display unit for its new line of Sherbits hard candies. This replaces a wooden display which was so large in size that its use in retail outlets was limited. The new, economical, plastic unit has lugs molded in the bottom of the two compartments to keep the rolls in orderly alignment. The white lettering is applied by a hot stamping operation. The four sections of the display enable orderly arrangement by the dealer of the different candy flavors and provide a convenient manner of selection by the consumer. Display, Chicago Molded Products Corp., Chicago.



Lever Bros. is featuring mass displays of a re-usable polyethylene household bag as the novel premium-carrying package for a special deal of regular-sized cartons of Lux and Rinso soap flakes and Swan toilet soap. This $1 value is offered in cities with up to 250,000 population for only 79 cents. Bag, Transparent Specialties Corp., Cleveland, Ohio, using Viking Corp. Visqueen polyethylene.



A giant replica of an effervescent glass full of Alka-Seltzer is the center piece of a new attention-getting window display for this well-known household remedy. The colorful background of the piece brings out details of the glass and the product ready to be consumed as a first aid in the home. Both the center piece and the side cards are lithographed. The smaller side cards are designed and constructed so that they may be used later as counter and shelf displays. An advantage of this display unit is that the various pieces may be used either together or separately, depending upon the space that might be available in the store window. Display, Forbes Lithograph Mfg. Co., Boston, Mass.

GALLERY







These miniature red and black "Pal" display figures—made from waste space on the printed sheets of Pal hollow-ground razor display cartons—can be put in many "hot" spots by salesmen just because of their small size. They are made to stand up by just folding the legs forward along the score lines. Design, Al Alko, New York. Printing, Warner Bros. Co., Bridgeport, Conn.

In addition to modernizing the packages for its complete line of windshield wipers and wiper blades, The Zaiger Corp., Lynn, Mass., offers dealers these attractively designed yellow and mulberry colored display cartons that can either stand on a counter or shelf, or be hung on a wall. Cartons, Stone & Forsyth, Everett, Mass.

"Father Biro," alias Santa Claus, was used throughout the world by Miles Martin Pen Co., Ltd., London, England, in a simple point-of-sale display for a Biro pen during the last holiday season. Easily set up, the one-piece, die-cut, scored unit is printed on white Scandinavian board. Design, W. M. de Mar and B. Lundstrom, London, England. Display, Richard Pye & Co., Ltd., London



Display cartons for One Shot lighter fluid, made by Tubed Chemicals Corp., Easthampton, Mass., emphasize all the features of this new change-maker package. Sales appeal for cigar stand dealers is the 5-cent price. The collapsible metal tube, containing just enough fluid for one lighter filling, has a specially designed break-off metal closure coated with a red colored vinyl-chloride-base lacquer to indicate where the consumer should break it off. Display, Pioneer Folding Box Co., Chicopee, Mass. Tubes, Sheffield Tube Corp., New London, Conn. Plastic coating, Better Finishes & Coatings, Inc., Newark, N. J.



In 1948 the pious little cardboard angels designed for RCA-Victor's holiday displays made such a hit that they were repeated in the company's displays in 1949. The large (24-in.) angel holding the cornucopia is suspended from the frame by a hidden cord so that it becomes a cost-free motion display swaying with store vibration or slight breeze. Display, Einson-Freeman Co., Long Island City, N. Y.


PARIS
DROPSY
LE MATERIEL


MANCHESTER
GOOD PRODUCTS
PACKAGING

European packaging

BRITISH AND FRENCH SHOWS

PROVE AMERICA HAS NO MONOPOLY ON INGENUITY IN PACKAGING AND DISPLAY

An American visitor to the British and French packaging exhibitions late last year would have come away re-assured on many scores, enlightened on others.

It was obvious at both Manchester and Paris that the European packager still looks westward to America for his ideal of the eye-appealing, convenient, economical and functional consumer package.

Both of the exhibitions were notable for their displays of American packages and for the attention that these displays attracted.

But there were also European innovations of which the American packager could profitably take note—innovations characteristic of the people who produce them.

The solid English character was reflected in such things as sturdy molded-pulp containers, improvements in the traditionally good British shipping packs, and rugged if unesthetic packaging machinery—which, incidentally, is increasingly attractive to European packagers in the current dollar shortage.

The well-known French flair was apparent, as usual, in bottles and boxes for perfumes and other luxury products—but not to the exclusion of utilitarian packaging ideas. French ingenuity could be found, too, in unusual adaptations of plastics and other materials, in spritely displays, in clever carton constructions and in the loving care given to the casing of *vin*, both *blanc* and *rouge*.

These notes and pictures are intended to give a quick American's-eye view of the two exhibitions, from the standpoint of ideas that could well be transplanted to these shores.

BRITISH

Britain's packaging consciousness was evidenced by the support given to the country's First National Packaging Exhibition, sponsored by the two-year-old Institute of Packaging and staged in Manchester's City Hall. There were 112 exhibitors and uncounted thousands of visitors. Plans were promptly made for a second exhibition, tentatively set for November, to be held in Olympia, London.

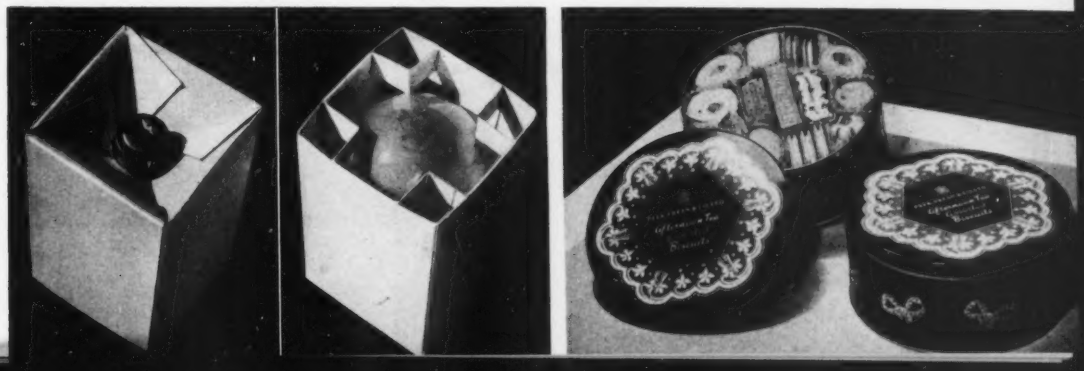
Britain is obviously far ahead of this country in the use of light, strong, decorative and economical molded-pulp packages. The material has been used there chiefly for functional shipping packs for such things as eggs and apples. But the British designer has taken advantage of moldability for reproducing trademarks and producing decorative elements that lend real appeal—as well as exceptional security—to products ranging from Scotch whisky to automotive parts. Costs are said to range from 5 to 10 cents, and even lower for really long runs. Glass, scientific instruments, wines and spirits, watches and clocks and many other articles can safely be conveyed in such packages with no additional protection but shipping containers.

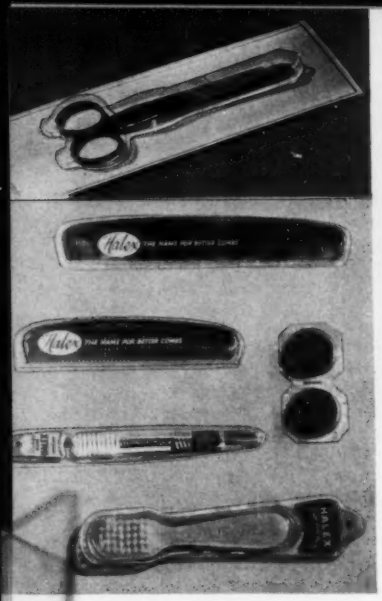
British knowledge of protective packs is reflected by other packages for fragile items. One is an electric-lamp carton, introduced after several years experiment (Fig. 1). The bulb is held in suspension by four interlocking flaps and rests on four scored supports folded to form a square at each corner of the opposite end. The lamps may be tested without removal from the carton, which is designed for conveyor-system handling, filling and closing. The cartons are used by Alaye, English manufacturer.

An interesting development for the packing of fish and similar products is a pressed-aluminum liner for a wooden crate. The entire package is re-usable for many trips. The liner is curved for easy and complete washing after every journey. The lid, aluminum lined, is closed by spring fasteners, obviating the use of nails.

British package users have found interesting new applications for drawn cellulose acetate containers contoured to the objects packaged. They consist either of two shaped pieces of acetate sealed together at the edges, as in the case of Lockheed aircraft parts and hair-comb packages (Fig. 4), made for an English firm by a French package supplier, or one piece of acetate shaped to the contour of the object but backed up with a paperboard slide held in grooves made by turning over the edges of the acetate. The product is placed between the two. A clever package for scissors (Fig. 3), called the "phantom," is made in this manner. The product is completely visible to the shopper,

1. SUSPENSION PACK used for merchandising light bulbs. **2. EYE APPEAL for biscuits sold in America.**

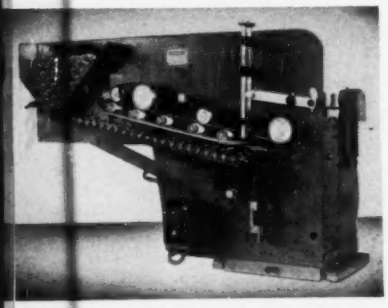




3 & 4. CONTOURED acetate film packages have many uses. SCISSORS PHOTO COURTESY PACKAGING REVIEW.



8. MODEL SUPERMARKET was most popular exhibit in the British show, where Britons could see all of the self-service packaging that is commonplace to American housewives. PHOTO COURTESY BROWN, BIBBY & GREGORY, LTD.



5. AMPOULE LABELER has speed of from 1,900 to 2,400 per hour.





6 & 7. BRITAIN IS AHEAD in development and use of decorative, functional molded-pulp containers.

but protected from dust and handling.

In the metal-container field, one firm has introduced a new 5-gal. tinplate export drum which incorporates pressed-out roller hoops on locked side-seam containers, providing the possibility of multiple-trip use of the same container. This improvement should be of interest to food, paint and chemical industries, which have usually regarded a 5-gal. container as a one-trip, non-returnable container, especially if it is made of light-weight material and lacks any strengthening feature.

A convenience for users of chemicals, liquid fertilizers and essences is a new pilferproof pouring closure for drums and metal containers known as the "Flexspout" (Figs. 9 and 10). It consists of a polyethylene spout with metal cover and threaded polyethylene cap. The closure is affixed to the drum head after filling by means of a simple crimping tool in the user's own plant, providing a large filling orifice. When the device is completely closed, the polyethylene spout is housed inside the drum, the metal cover plate projecting less than 1/8 in. above the container head and thus fully protected by the rim or embossed-up panels. This is said to eliminate a frequent complaint from exporters that the base of one drum can dislodge or damage the projecting closure of the one below. When required for use, the center seal, molded with the spout and providing additional protection against tampering, is cut and the spout pulled out with the fingers from within the neck. The spout can, of course, be pushed back to the level of the stamping after use and be reclosed tightly with the threaded cap.

Another antipilfering device is a case seal, known as the "Sphincta," now being used by John Walker & Sons, Ltd., London, well-known whisky distillers. Made of steel strip, this case seal has a top part which breaks into pieces around its serrated edges as soon as any attempt is made to remove it. Therefore, it is easy to see at a glance if a case has been tampered with during its journey. If the seals are fixed at every point where the boards of the case meet, it is impossible for the pilferer to touch the goods without breaking the seals.

Another seal made by the same firm is the "Crampon" for parcels. It is also made of steel and provided with a fibre disk. As soon as the seal is fixed by a special "Crampon" press, the prongs of the seal penetrate every fold of the parcel wrapper and then bend into the fibre disk underneath the seal. This means that every lap-

over of the wrapper is sealed together, while the small teeth around the outer edge of the seal grip the string of the parcel tightly.

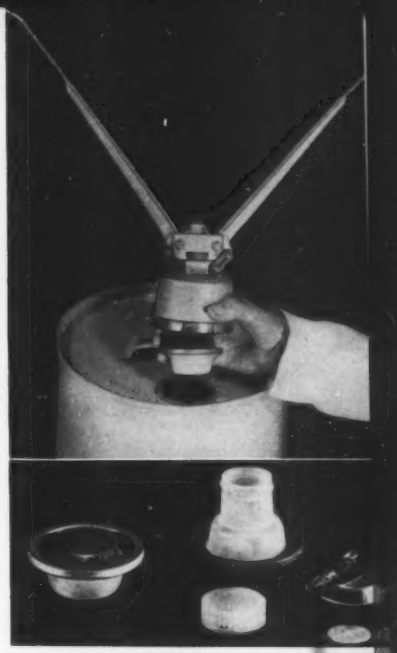
British interest in package designs with greater eye and counter appeal was indicated in the exhibits of consumer packages. Noteworthy was Peek Frean's Afternoon Tea Biscuit assortment packaged in a lithographed tin for export to North American markets (Fig. 2). Unmistakably English in treatment, it has the strikingness of design and color required for successful merchandising alongside American-designed packages.

One of the most popular spots in the Manchester exhibition was a setup of a model American supermarket called the "Shop of the Future" (Fig. 8). At this stand, visitors had the opportunity of seeing what is commonplace to the American housewife—transparent pre-packages of meats and cheese, packages of frozen foods and ice cream in refrigerated cabinets, mesh bags for potatoes and citrus fruits, rows and rows of cartoned staples, glassine and printed cellophane bags containing cookies, potato chips and cereals, as well as representative examples of point-of-sale display material.

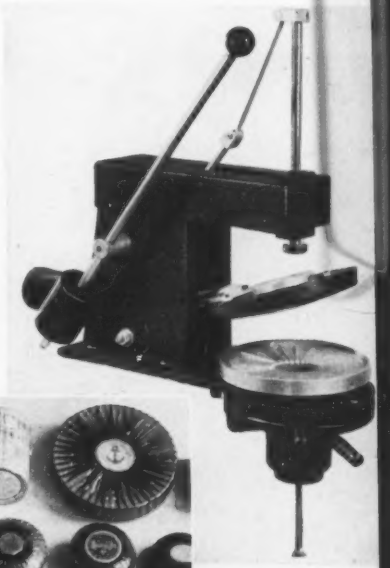
American machinery manufacturers and production engineers will find new machinery developments in England of special interest. One machine, designed to label vials, ampoules, tubes and other small cylindrical containers, has a claimed speed of 1,900 to 2,400 per hour. The machine (Fig. 5) will affix labels so that the ampoule is covered completely, with the ends of the label meeting precisely, or it will leave a gap so that the contents may be viewed. It will also overlap the ends, if desired. The ampoules are fed from a V-shaped hopper down an inclined plane to a gap in the gum plate, which delivers a gummed label over each. A finger gripper comes down on top of the ampoule and presses the left portion of the label firmly to the glass. The gum plate is withdrawn and the ampoules are raised on a channel to the upper inclined plane, the edge of the label being wiped at the same time to assure firm contact with the container. The ampoule, revolving under pressure from an endless belt, is driven up a second rising plane toward the top. This plane is lined with sponge rubber, the pressure from which is said to assure firm adhesion. At the top, the labeled ampoule falls into a V-shaped channel which moves up into a vertical position at right angles to the conveyor and slides the ampoule out on its base into a tray. It is then automatically stacked, ready for removal. The machine, which requires one operator, is an adaptation of a semi-automatic machine (Newman) already used by hundreds of food, chemical, beer and beverage packers throughout the world.

A clever semi-automatic device for pleat wrapping small, circular, oval, square or oblong objects such as soap, cosmetic items, confections, golf balls, etc., uses "wrapped-damp" cellophane, plastic films, glassine or other thin papers (Figs. 11 and 12). Die-cut disks of the wrapping material are held lightly between the pleating plates. A lever-operated plunger pushes the article to be wrapped into the base which forms the pleat. A camera-type iris closes the pleats. Pleating plates can be interchanged quickly for various sizes and shapes. The device may be equipped for heat sealing. Two operators can produce up to 900 units per hour.

Another British machinery manufacturer has developed a table-sized

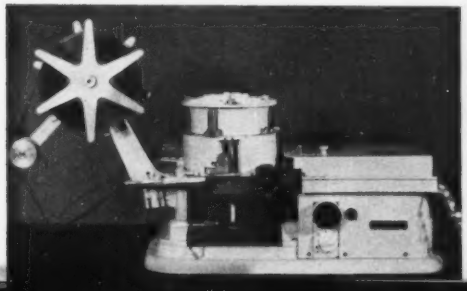


9 & 10. **PILFERPROOF pouring device for metal drums has polyethylene spout, screw cap and tamperproof metal cover. Spout is concealed when drum is closed, pulled up for use after center seal is cut. Screw cap is used for reclosure. Crimping tool is used for applying closure.**



11 & 12. **PLEATED wraps for soap, golf balls, cookies, cosmetics, etc., with device for applying them.**

13. **TABLE MODEL unit packer which forms tape, seals tablets either singly or in rows of two and three.**







14. DRAWN ACETATE BOTTLES, made in halves and sealed together, are used for tablets, powders, viscous products. They take standard corks.



15. PUSH-BUTTON hinged closure is idea for jar closure to be used for tablets, powders, pastes, etc.

unit-packaging machine (Fig. 13) which, it is said, will wrap and seal, fully automatically, 150 tablets in a tape of flexible packaging material, either singly or in rows of two or three. The machine may be used with any heat-sealing film, it is said.

FRENCH

Record attendance was claimed for the Third Paris Packaging Exhibition, sponsored by Salon de l' Emballage. Visitors from all over Europe and many parts of the world were attracted. Twelve avenues, 20 ft. wide, ran the length of the hall.



16 & 17. VINYL FILM containers—one a tiny tube for paste, the other replacing glass carboy in wood box or carton.



18. GALLIC WIT is apparent in this display unit molded of plastic-impregnated wood pulp.

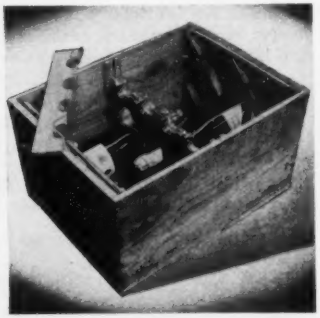


Every possible aspect of packaging, from tiny pill boxes to 8-ton containers, was represented, as well as the materials and machines to make them, displayed with true Gallic style and ingenuity.

On exhibit, of course, were hundreds of the beautiful cosmetic and perfumery packages for which the French are noted, but not to the exclusion of utilitarian ideas.

Thousands in France depend for livelihood on the export of wine. It is thus little wonder that the French come up with efficient ideas for the shipment of wine. One of these is a wooden box for champagne bottles with clever interior partitioning (Fig. 19). The bases of the bottles are held rigidly in a wooden lattice at each end of the box. The necks are secured in a two-piece center partition by means of doweled semi-circular notches which form round holes when matched together to hold the bottles in place. In such a pack, the champagne rides, as it should, on its side. The packaging method with strips of cellophane over the neck openings, also protects the aluminum foil neck labels.

A revolutionary principle in metal jar closures was suggested by a spring hinge displayed for containers to hold tablets, powders or pastes, obviating the use of a screw cap (Fig. 15). A two-piece metal cap, consisting of an interlocking neck ring and lid is equipped with a spring button on top which, (*Continued on page 174*)



19. SAFE RIDE for champagne is assured by this wood box with interior construction that permits bottles to be carried on their sides.

Be a party on the BURT line



Round and oval boxes

Square and oblong boxes

Quality folding cartons

Transparent acetate containers

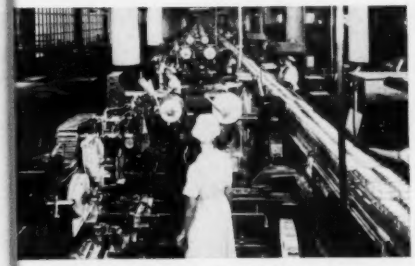
Round paper canisters

F. N. Burt Company Inc. • Manufacturers of Small Set-up Boxes, Folding Cartons and Transparent Containers • 500-540 Seneca Street, Buffalo 4, N. Y. Offices in all Principal Cities Or Write Direct Canadian Division: Dominion Paper Box Co. Ltd. 469-483 King Street W., Toronto, Canada

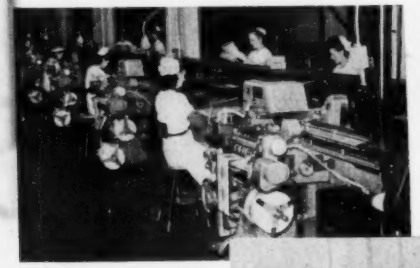
"PACKAGE" MAINTAINS  A STAFF OF

Over 80 ENGINEERS and DESIGNERS

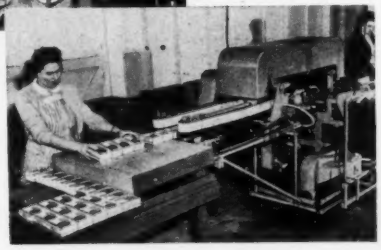
...to insure your getting exactly the right machine for your production requirements



A battery of machines especially designed for wrapping Dentyne Chewing Gum.



Among the types of "Package" machines used by Schrafft are these DF-1 bar wrappers.



For the frozen food field, we developed our FF machine —shown here wrapping metal-end fibre cans in the plant of C. S. Kale Canning Company.

To obtain a package with the *utmost sales appeal* and a production set-up that will insure *lowest costs,* calls for packaging machinery that is practically tailored to your needs.

So you can readily see why we at "PACKAGE" lay such emphasis on engineering and designing. In fact, although we have developed the largest line of wrapping machines in the world, there really is no such thing as a ready-made "PACKAGE" machine. For, after a careful study of your product and your production methods, we select the type of wrapping machine indicated—and then engineer it to your special requirements.

Such painstaking engineering has not only benefited our customers individually, but has also resulted in the development of new packaging techniques and improvements that have found wide application . . . It explains why so many companies have standardized on "PACKAGE" machines, and why these machines are now the most widely used in the packaged goods industry.

Write for our folder "Packages that Sell" illustrating the many types of packages produced by our machines.

PACKAGE
MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS

NEW YORK CHICAGO BOSTON CLEVELAND ATLANTA DALLAS DENVER LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D. F.

TECHNICAL
ENGINEERING • METHODS • TESTING
Charles A. Southwick Jr. • *Technical Editor*

Polyethylene-polyisobutylene blends

COMBINATIONS PROMISE IMPROVED PROPERTIES AT NO GREATER COST AND MAY GREATLY EXTEND POLYETHYLENE'S PACKAGING UTILITY.

By R. G. Newberg*

A study of polyethylene-polyisobutylene blends has proved extremely interesting. It indicates that the versatility of polyethylene resins for packaging applications may be broadened considerably to include new fields where unmodified polyethylene falls short, or is borderline. The economics involved also appear attractive, since the substitution of polyisobutylene does not affect the film surface yield per pound and possibly may reduce the cost of the finished product.

Investigators in recent years have searched intensively for plastic films to do well-nigh impossible packaging assignments. They have demanded grease resistance, selective gas resistance, water-vapor impermeability, low temperature flexibility, flame resistance, transparency and numerous other attributes. As they carried their investigations further and further they found that certain films were good for certain applications. But no one plastic film possessed sufficient versatility to serve other than a narrow band of the wide range of packaging requirements. Polyethylene, one of the most interesting plastics, has many attributes to recommend it for a number of packaging applications. However, along with other plastics it has limitations. The purpose of this brief paper is to present some interesting data on blends of polyisobutylene and polyethylene and to demonstrate the increased versatility of the latter polymer.

*Standard Oil Development Co., Chemical Div., Linden, N. J.

The two polymers are completely compatible. They possess, however, different physical and chemical properties. The results indicate that blends of these two plastic elastomers may provide a series of materials of considerable versatility. Inasmuch as both polymers possess many of the properties requisite for a packaging film, the blends may embrace a wide field of such applications. They may solve many packaging problems which thus far have defied solution.

Several workers, including Sparks (1)[1] and Latham, (2) have reported studies on polyisobutylene-polyethylene blends. These reports, however, did not give details. In recent months considerable interest has been evinced in the use of polyisobutylene as a plasticizer for polyethylene of high molecular weight. Therefore it was believed that a comprehensive laboratory investigation of such blends would prove valuable.

Tests were made, including determination of tensile strength, elongation, brittleness, tear strength, gas and water-vapor permeability, chemical resistance, heat resistance, heat sealability and processing. Polyethylene (du Pont PM-1) was used as the base resin, with polyisobutylenes B-80, B-120 and B-260 as the plasticizers.

In most of the work the base formula closely approximates some of the polyethylene compounds used in the industry for calendered and extruded sheets. The formula by parts was as follows:

Polyethylene-polyisobutylene[3] blend	100
Deenax[3]	0.25
Stearic acid	1.0
Microcrystalline wax, 190 deg. F. melting point	2.0

The Deenax was used primarily to prevent breakdown of the polymers. Stearic acid and microcrystalline wax were included since they are commonly used as processing aids in polyethylene formulas. Concentrations of the polyisobutylene in the polymer base were varied from 0 to 100%. In this work the several grades of polyisobutylene have been designated by B-numbers. B-80 corresponds to a polymer of about 80,000 molecular weight (Staudinger), B-120 to 120,000, and B-260 to 260,000. Molecular weights were determined from solution viscosities in diisobutylene.

Experimental procedure

The test blends were prepared on a laboratory rubber mill by compounding at 260 to 280 deg. F. The polyethylene was added to the polyisobutylene. The time on the mill was 15 min. To form test specimens the compounds were molded in a standard ASTM four-cavity mold (D15-41) yielding pads 6 by 6 by

[1] Numbers in parentheses identify "References" appended.

[2] Polyisobutylene sold by Enjay Co., Inc., trade name Vistanex. Note, B-260 is an experimental polymer not commercially available.

[3] Deenax, non-staining, non-toxic inhibitor sold by Enjay Co., Inc.

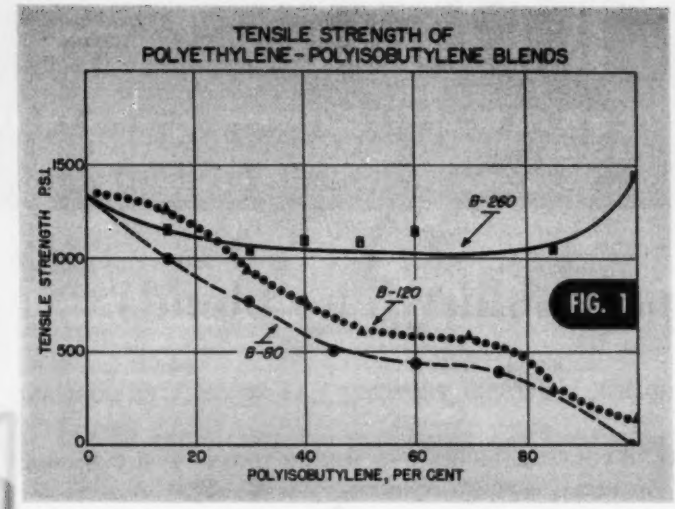


FIG. 1

0.075 in. These were molded at 300 deg. F. for 5 min. at a pressure of 900 p.s.i. and then cooled under this pressure.

Film specimens necessary for heat-sealing tests, water-vapor transmission, etc., were calendered on a three-roll laboratory rubber calender. Calendering conditions were not critical, temperatures from 250 to 300 deg. F. on the top roll and 225 to 275 deg. F. on the middle roll producing excellent results. The tests were conducted according to the ASTM and other methods cited in the tables and figures.

Discussion of investigations

Tensile, elongation. The effects of blending polyisobutylene with polyethylene on tensile strength and elongation are shown in Figs. 1 and 2. As might be expected, increased concentrations of B-80 and B-120 lower the tensile strength. B-260, being of high molecular weight and stronger, shows little or no deleterious effects on this property. Elongation increases with increasing concentrations of polyisobutylene. The polyisobutylenes of lower molecular weight exhibit the more pronounced effects. It is interesting to observe that good physical properties are retained by those blends containing up to 40 to 60% of polyisobutylene.

Tear strength. One of the attractive properties of polyethylene, which has contributed considerably to its applications in sheet form, is its excellent tear resistance. It is therefore necessary that blends with polyisobutylene exhibit a similar characteristic. The effect of polyisobutylene on this property is shown in Fig. 3. In all cases the tear strength decreases as the concentration of polyisobutylene increases. However, up to 50% concentration, tear strengths in excess of 200 lb. per linear inch were obtained. This is quite adequate for most packaging applications such as for dried foods, chemicals, fresh fruits, fresh vegetables and for molded containers such as bottles.

Heat resistance. Some data on the heat resistance of these blends when exposed to 150 deg. C. in a circulating air oven for seven days are shown in Table I. Polyethylene is known to be excellent, showing little breakdown even after long periods of exposure.

TABLE I—HIGH TEMPERATURE STABILITY* OF POLYETHYLENE-POLYISOBUTYLENE BLENDS

Polyisobutylene in blend, %	*Weight loss in 7 days at 150 deg. C., %*		
	B-80	*B-120*	*B-260*
0	3.43	3.43	3.43
15	4.26	3.08	3.26
30	3.96	5.49	3.73
40	...	6.16	5.66
45	6.90	...	...
50	...	6.92	7.02
60	8.82	7.75	8.98
70	...	8.30	10.20
75	7.52	...	...
85	...	11.03	14.65
90	14.60	...	...
100	34.95	26.55	35.75

* Procedure followed with slight modification was that described by R. B. Seymour, *Ind. Eng. Chem. 40*, 524 (March, 1948).

The addition of polyisobutylene affects this property adversely. As the concentration of the latter polymer increases, the weight loss becomes greater. The 3.4% weight loss that was exhibited by polyethylene is probably mostly due to loss of the modifying ingredients, stearic acid and wax, these being 2.9% of the formulas. B-120 appeared better than either B-80 or B-260, showing only 4.85% loss at 50% concentration, if the stearic acid and wax are discounted. It is evident that the high temperature stability is quite adequate for processing and that no degradation will occur during blending, calendering, molding or extrusion.

Low-temperature flexibility. Polyethylene is widely publicized for its low-temperature flexibility and shows much promise for packaging frozen foods. ASTM Bell brittleness tests gave some interesting results (Table II). Polyethylene failed at minus 80 deg. F. The substitution of polyisobutylene in concentrations as low as 15% raised this point 10 deg. F. However, in all concentrations satisfactory flexibility was obtained at temperatures below minus 50 deg. F. Again B-120 appeared to hold a slight, perhaps questionable, advantage. These results make it apparent that polyisobutylene does not seriously affect the low-temperature properties of polyethylene; and, as will be brought out later, it may improve some of the questionable properties of polyethylene which would otherwise preclude its use in certain low-temperature packaging operations.

TABLE II—BRITTLE TEMPERATURE* (FAILURE) OF POLYETHYLENE-POLYISOBUTYLENE BLENDS

Polyisobutylene in blend, %	*Brittle temperature, F.*		
	B-80	*B-120*	*B-260*
0	—80	—80	—80
15	—60	—70	—70
30	—60	—60	—50
40	...	—60	—70
45	—60	...	...
50	...	—60	—50
60	—60	—70	—70
70	...	—70	—70
75	—60	...	...
85	...	—70	—70
90	—70	...	...
100	—70	—70	—70

* Tests made with Bell instrument described in ASTM D 746-44T. The specimens were conditioned 30 min. in air at the test temperature to reach equilibrium temperature in air bath prior to testing.

TABLE III—GAS PERMEABILITY* OF POLYETHYLENE-POLYISOBUTYLENE BLENDS

Polyisobutylene in blend, %	Permeability of 10 mil thickness at 23 deg. C., liters/sq. meter/24 hrs. B-80			B-120			B-260		
	H_2	CO_2	N_2	H_2	CO_2	N_2	H_2	CO_2	N_2
0	2.37	2.60	10.40	2.37	2.60	10.40	2.37	2.60	10.40
15	2.05	0.90	4.20	1.97	1.10	3.10	2.14	1.40	4.20
30	2.15	0.45	8.60	1.78	1.30	4.50	1.94	1.30	3.70
40	...	...	...	2.16	1.50	4.00	1.93	0.90	4.20
45	1.87	0.44	5.40	...	...	...	...	...	...
50	...	...	...	2.44	1.90	4.50	2.13	0.90	4.00
60	2.04	0.43	5.00	2.16	0.52	3.40	1.89	0.40	4.20
70	...	...	...	2.24	0.58	3.80	2.11	...	5.00
75	2.06	0.45	3.90	...	...	...	...	...	...
85	...	...	...	2.34	0.58	3.70	2.09	0.40	6.30
90	1.94	0.20	5.20	...	...	...	...	...	...
100	1.56	...	7.70	2.44	...	4.30	2.32	...	4.50

* ASTM D 815-44T.

Gas permeability. Some very interesting results are shown in Table III on the gas permeability of these blends. In all cases the general trend was toward improvement of the resistance to gas transfer by the substitution of polyisobutylene for some of the polyethylene. The most interesting point demonstrated by this brief survey is that it appears possible to make polyethylene applicable in questionable packaging applications such as for dried fruit. Successful dried-fruit packaging depends on retention of sulfur dioxide within the package. Polyethylene is relatively permeable to sulfur dioxide, whereas polyisobutylene is considerably less permeable. The data indicate that a film prepared from a blend of these two polymers may be quite suitable for dried-fruit packaging. Other modifications of polyethylene are also suggested, such as decreasing its oxygen permeability, which may be necessary for some applications. Certain low-temperature packaging operations require retention of odor and polyethylene has been found wanting. Blends with polyisobutylene may solve this difficulty. No doubt other possibilities will be suggested to the experienced fabricator.

Water-vapor transfer. Many packaging applications demand excellent resistance to water-vapor permeation. The effects of polyisobutylene on the water-vapor permeability of polyethylene are shown by the data in Table IV. Here again, interesting results were achieved. Polyethylene is known to be one of the better thermoplastics that can be used as a barrier against penetration of water vapor. Polyisobutylene does not deleteriously affect this property, but on the contrary tends to improve it. Such blends should prove quite interesting for packaging operations that require excellent resistance to transfer of water vapor.

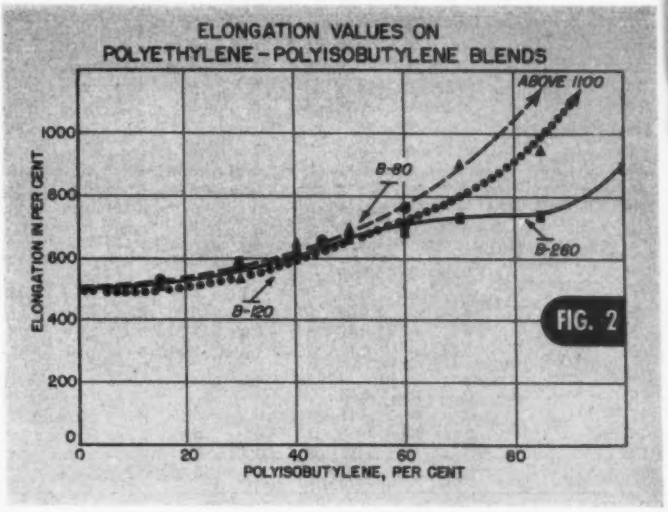
Chemical resistance. Results of tests on chemical resistance are shown in Table V. They confirm what might be predicted from a knowledge of the two polymers. Both are resistant to acids, alcohols and bases. Blends of the two possess this same property. There are no apparent deleterious effects, nor any marked improvements.

Processability. As was discussed earlier, the blends for these tests were mixed on a rubber mill, then molded or calendered, depending upon the test to be made. In other work it was demonstrated that these blends may be made by using a Banbury operating on short cycles at temperatures ranging from 275 to 300 deg. F. Films may be formed using extrusion techniques and equipment which are suitable for unmodified polyethylene. Very attractive films have been made of some of the blends in commercial tests. If anything, laboratory tests indicated that blends of the two polymers (not exceeding 60% polyisobutylene) showed improved processability over normal polyethylene. Temperature sensitivity was considerably reduced and processing rates were increased. Other blending techniques, such as extrusion, may prove quite satisfactory if the polyisobutylene can be obtained in pellet form. At the present time this is not the case, but the possibilities are apparent. Injection-molding operations may be carried out satisfactorily on the pellets

TABLE IV—WATER-VAPOR PERMEABILITY* OF POLYETHYLENE-POLYISOBUTYLENE BLENDS

Polyisobutylene in blend, %	Permeability of 4 mil thickness g./24 hrs./100 sq. in. B-80	B-120	B-260
0	1.95	1.95	1.95
15	1.10	0.25	0.36
30	2.06	0.28	0.20
40	...	0.23	0.49
45	0.27	...	...
50	...	0.30	1.04
60	0.70	0.99	0.32
70	...	0.52	0.26
75	0.49	...	...
85	...	0.54	0.74
90	0.19	...	...
100	0.13	0.99	0.37

* TAPPI T 464-M65 and T 465-SM44.



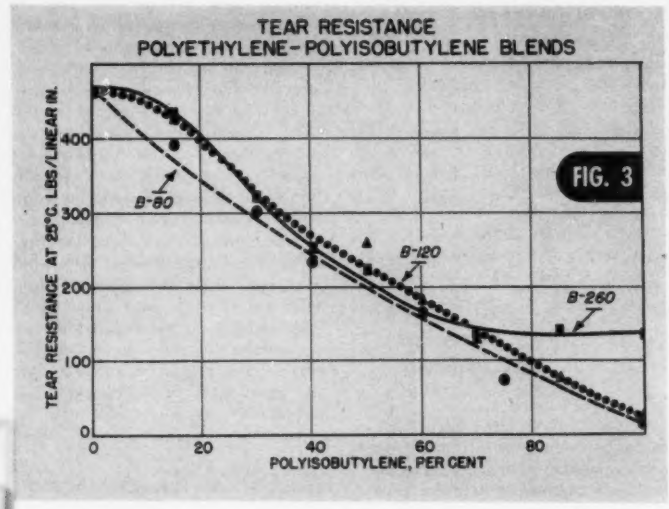


TABLE V—CHEMICAL RESISTANCE OF POLYETHYLENE-POLYISOBUTYLENE BLENDS IMMERSED 7 DAYS AT 77 deg. F.

Polyisobutylene in blend, %	*% change in thickness, diameter and weight*								
	B-80			*B-120*			*B-260*		
	Thickness	*Diameter*	*Weight*	*Thickness*	*Diameter*	*Weight*	*Thickness*	*Diameter*	*Weight*
Sulfuric acid, 30%									
0	0.73	0	−0.25						
15	0	0	−0.36	1.52	0	0.05	0	0	0.01
45	0	0	0.11	0	0	0.09	0	0.19	0.11
75	0	0	0	0	0.49	0.01	0	0.59	0.02
Sodium hydroxide, 10%									
0	−0.39	0	0.93						
15	0	0	0	0	0.60	0.55	0	0.29	0.11
45	0	0	0.60	0	0	0.08	0	0.09	0.11
75	0	0	0.60	0	0.19	0.24	0	0.19	0.09
100	0.78	0	0.12	1.10	0.68	0.19	1.18	0.10	0.11
Ethyl alcohol, 95%									
0	0	0	−0.25						
15	0	0	−0.82	0	0.29	−0.10	1.45	0.29	0.15
45	0.46	0	−0.29	0	0	0.08	1.64	0.09	0.18
75	0.28	0	−0.15	0	0	0	1.33	0.68	0.15
100	0.15	0	−0.39	0	0	0	1.22	0.50	0.17
Ethyl alcohol, 50%									
0	−0.13	0	−0.17						
15	0	0	−0.88	0	0.29	0.16	0	0.29	0.17
45	0	0	−0.19	0	0.29	0.51	0	0.19	0.23
75	0.14	0	−0.14	0	0	0	0	0.29	0.20
100	0.44	0	0.55	0	0	0	3.95	0	0.59
Sodium chloride, 10%									
0	0.14	0	0.89						
15	0	0	0.18	0	2.1	5.10	0	0.29	0.08
45	0	0	0.96	5.6	7.1	5.60	0	0.29	0.11
75	0	0	0.47	6.8	0.9	11.70	0	0.29	0.06
100	0.44	0	0.11	2.2	1.9	1.20	0	0.91	0.25
Distilled water									
0	0	0	0.64						
15	0	0	0.15	0	0	0.40	0	0.29	0.39
45	0	0	0	0	0	0.90	0	0.39	0.24
75	0	0	0.14	0	0	0.30	0	0.29	0.23
100	0.46	0	0	0	0	0.80	0	0.91	0.32

produced from the blends. Thus semi-rigid molded packages are quite possible.

Heat sealing. As most film packaging operations require good heat-sealing characteristics, this feature was investigated. Data are shown in Table VI. In this work the heat-sealing temperature was defined as that sealing temperature at which the seal was stronger than the parent film. Polyisobutylene tends to lower the heat-sealing temperature, a good feature.

In general, there appear to be no critical processing problems other than the economics involved.

TABLE VI—HEAT SEALING* OF POLYETHYLENE-POLYISOBUTYLENE BLENDS

Polyisobutylene in blend, %	*Heat-sealing temperature, deg. F.*		
	B-80	*B-120*	*B-260*
0	250	250	250
15	250	250	250
25	250	225	225
40	250	225	225
50	200	200	200
75	200	200	200
100†	...	...	...

* Proposed Packaging Institute test method for heat-sealing strengths and characteristics.
† Tacky films unsuitable for sealing tests.

Economics

Since the blending of polyethylene with polyisobutylene requires an additional processing operation, the economics of making this blend must be considered. As the polymers have the same specific gravity, 0.92, the cost-per-pound volume depends only on the market price of the two polymers and the expense of the additional operation. Polyisobutylene costs about 30% less than polyethylene, there being a differential of 12 cents or more per pound (depending on the grade of polyethylene) in favor of polyisobutylene. Assuming that this difference in price is completely absorbed by the blending expenses, a real advantage is still realized through increased versatility of the product.

In a recent article Elder (3) listed a few of the better-known flexible protective packaging materials, arranged in order of decreasing water-vapor permeability. Polyethylene was included in this list, which is reproduced in Table VII, except that a 50–50 polyethylene-polyisobutylene blend (B-120) is included. The improvement (*Continued on page 172*)

Fruit film results

FURTHER STUDIES ON BING CHERRIES PROVIDE GUIDE TO COMPARATIVE QUALITIES OF VARIOUS MATERIALS, INCLUDING BUTYRATE.

By Fisk Gerhardt*

Recently published studies (1)† have shown that certain types of plastic films are unsuited for packaging sweet cherries grown in the Pacific Northwest. Most of the films "fogged up" badly with change in temperature and many, in sealed packages, were too impervious to CO_2 gas to be used with safety during the necessary period required for transport and marketing the fruit.

This report is on a continuation of packaging studies for sweet cherries conducted during 1948. Our objective remained unchanged, namely, to find a film of sufficient transparency and strength yet allowing proper gas diffusion to maintain a non-injurious concentration of carbon dioxide gas sufficiently high to prevent decay and to preserve the natural brightness of the fruit.

Films and packages studied

The following types of films and foils were used: Pliofilms 75FF, 50P.F and 100FF as windows on coated paper; cellophane 300 LSAT, 450 LSAT and Duplex 300/300 LSAT; Kodapak II (cellulose acetate butyrate) No. 130 and No. 200; Reynolon (cast polyethylene) No. 1150 and No. 1300; Reyfoil (plain aluminum metal foil) and the heat-sealable foil, both in 0.0015-in. gauge; and Reyseal-502 (a thin aluminum foil with paper backing).

The four transparent films used in this study were each made up in bags to hold approximately 4 lbs. of fruit. Three bags of each film filled with fruit were sealed and water tested to insure against leaks; duplicate bags were also sealed then perforated with a 1/16-in. hole on two facings of each bag; two bags of each film were crimp folded and stapled shut with an ordinary desk stapler. The aluminum foils were used only as sealed bags.

Kodapak II No. 200 (butyrate film) also was tried as an overwrap for the Dobeckmun "windowed cherry tray," as shown in the illustration. This container held 1 lb. of fruit which was visible through all but the ends of the tray.

Check or control lots of fruit were packed in triplicate in 5-lb. plain paper-lined replicas of the standard 17 1/2-lb. Campbell lug.

As in 1947, rains again damaged the ripening cherry crop in Washington in 1948. The larger amounts of decay increased the hazards of shipment and marketing. Rain-weakened fruit was purposely chosen for these studies in order to work with significantly large amounts of decay. Three hundred and seventy-four pounds of Bing cherries harvested at Wentachee, Wash., on July 6, 1948, were held at 70 deg. F. overnight and carefully sorted and composited on July 7. The fruit was next packaged and placed at 36 deg. F. for 11 days, then removed to 75 deg. for two additional days to represent extremes in transit and retail marketing.

Loss in weight of the fruit during storage was determined by weighing the entire sample to the nearest gram before and after storage. Carbon dioxide in the packaged samples was measured at intervals with a Hays gas analyzer. Decay was determined by weighing visibly decayed fruit after holding for an additional two days at 75 deg. F. The fruit was also evaluated organoleptically for dessert quality at this time.

Results

Carbon dioxide. Data relative to the build-up of carbon dioxide, the amount of decay, the loss of moisture and the dessert quality of the fruit in the various kinds of packages are given in Tables I and II.

The sealed Pliofilm, Reynolon (poly-

* Senior Plant Physiologist, U. S. Dept of Agriculture, Wenatchee, Wash.
† Figures in parentheses identify "References" appended.

TABLE I—OBSERVATIONS OF BING CHERRIES IN SEALED BAGS[1]

Type of film	Loss of moisture by fruit, %	Decay, %	CO_2 in atmosphere in bags, % 5 days 36° F.	11 days 36°	2 added days 75°	Dessert quality
Pliofilm 75 FF	0.57	8.47 ± 0.18[4]	7.0	6.3	25.4	Flat, some anaerobic taste
Pliofilm 50 P.F	0.37	10.43 ± 2.12	7.0	5.7	23.3	Flat, some anaerobic taste
Pliofilm 100 FF[2]	2.52	21.1 ± 0.31	0.5	0	1.3	Normal
Cellophane 300 LSAT	1.38	8.80 ± 0.72	7.0	5.3	31.0	Sharp, anaerobic taste
Cellophane 300/300 LSAT[3]	1.07	7.70 ± 0.12	10.7	10.7	28.0	Sharp, anaerobic taste
Cellophane 450 LSAT	1.60	9.10 ± 0.65	6.5	5.7	24.8	Flat, slight anaerobic taste
Kodapak II No. 130 (butyrate)	2.14	17.20 ± 1.70	1.5	1.5	5.7	Normal
Kodapak II No. 200 (butyrate)	1.93	19.80 ± 2.36	2.5	3.0	10.0	Normal
Reynolon 1150 (polyethylene)	0.22	5.07 ± 1.31	8.1	8.0	26.0	Flat, anaerobic taste
Reynolon 1300 (polyethylene)	0.30	5.80 ± 0.90	6.9	7.0	29.7	Sharp, anaerobic taste
Reyfoil—heat seal 0.0015 (foils)	0	19.90 ± 0.12	5.0	4.3	10.0	Normal
Reyfoil—plain 0.0015 (foils)	0.14	19.10 ± 2.56	2.7	2.7	13.3	Normal
Reyseal #502	0.22	21.13 ± 2.73	0	0.5	3.3	Normal
Check—std. lug	4.33	17.10 ± 1.63	0	0	0	Normal

[1] After storage at 36 deg. F. for 11 days and holding for two additional days at 75 deg. to simulate transit and marketing.
[2] Coated paper bag with one full facing made of FF 100 N.F. Pliofilm.
[3] Double bags made from LSAT 300 cellophane.
[4] Standard error of the mean.

TABLE II—OBSERVATION OF BING CHERRIES IN PERFORATED AND IN CRIMP-FOLDED AND STAPLED BAGS[1]

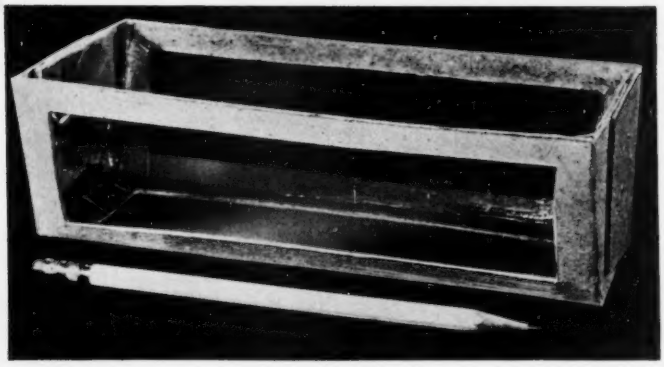
Type of film	Loss of moisture by fruit, %	Decay, %	CO_2 in atmosphere in bags, % 5 days 36°F.	11 days 36°	2 added days 75°	Dessert quality
Perforated bags[2]						
Pliofilm 75 FF	0.70	19.8 ± 0.42[3]	1.5	1.5	6.0	Normal
Pliofilm 100 FF	0.63	12.9 ± 3.03	1.5	1.5	4.0	Normal
Cellophane 300 LSAT	1.54	15.7 ± 0.25	2.0	1.5	10.0	Normal
Cellophane 450 LSAT	1.79	12.1 ± 1.16	2.5	2.0	10.0	Normal
Kodapak II No. 130 (butyrate)	2.06	19.2 ± 0.14	1.5	2.0	6.5	Normal
Kodapak II No. 200 (butyrate)	1.98	22.7 ± 0.5	1.5	2.0	5.0	Normal
Reynolon 1150 (polyethylene)	0.38	14.3 ± 1.41	3.0	3.0	9.5	Normal
Reynolon 1300 (polyethylene)	0.	13.6 ± 1.46	3.0	2.5	12.0	Normal
Crimp-folded and stapled bags[4]						
Pliofilm 75 FF	0.66	14.8 ± 0.42	...	...	...	Normal
Pliofilm 100 FF	0.43	14.5 ± 1.76	...	...	...	Normal
Cellophane 300 LSAT	1.46	25.7 ± 0.90	1.5	0.5	5.0	Normal
Cellophane 450 LSAT	1.64	15.1 ± 0.46	1.5	1.5	7.0	Normal
Kodapak II No. 130 (butyrate)	2.03	26.2 ± 2.04	1.0	1.0	2.0	Normal
Kodapak II No. 200 (butyrate)	2.04	23.2 ± 0.14	1.0	1.0	4.2	Normal
Reynolon 1150 (polyethylene)	0.45	13.6	2.0	1.0	10.0	Normal
Reynolon 1300 (polyethylene)	0.20	19.7	1.5	1.5	6.0	Normal
Check						
Standard lug	4.33	17.1 ± 1.63	0	0	0	Normal

[1] After storage at 36 deg. F. for 11 days and holding for two additional days at 75 deg. to simulate transit and marketing.
[2] One perforation of 1/16-in. diameter on opposite sides of otherwise sealed bags.
[3] Standard error of the mean.
[4] Crimp folded and stapled with pilot desk stapler.

ethylene) and cellophane films all retained from 6 to 10% CO_2 during storage at 36 deg. F. This accumulation of gas occurred early in storage and was maintained at a relatively constant level during cold storage. The Kodapak II (butyrate) films, together with the Reyfoil and Reyseal aluminum foils, were relatively pervious to CO_2 gas. Theoretically, the metal films should have retarded the diffusion of all gases, but in actual practice small cracks and pinholes developed as a result of folding and handling the foil. Since these foils afforded no view of the packaged commodity and since they did not retain sufficient CO_2 to retard decay or enhance the quality of the fruit, their value as a packaging medium for sweet cherries is doubtful.

As shown in Table I, Pliofilm, cellophane and Reynolon (polyethylene) films of specified types retained a safe level of CO_2 during cold storage, but they permitted an injurious concentration of 23 to 31% by the second day at 75 deg. F. Previous studies (2) have shown that when oxygen is not a limiting factor, carbon dioxide concentrations of the above order are not harmful to the dessert quality of cherries. In the present studies flavor was, however, impaired, probably as a result of depletion of oxygen in the small packages during storage for a period of 11 days at 36 deg. followed by two days at 75 deg.

WINDOWED TRAY of fibreboard, which is similar to the Dobeckmun 1-lb. cherry container, used in one of the tests. The overwrap is Kodapak II No. 200 (cellulose acetate butyrate). It provided ideal visibility for the fruit.



In none of the perforated or crimp-folded bags did CO_2 accumulate in any appreciable amount. Platenius (3) found that a small hole of 4 mm. in each sealed moistureproof cellophane bag permitted a diffusion of a sufficient amount of oxygen to prevent an anaerobic taste. This was accomplished without a significant increase in the rate of moisture loss. In these experiments (Table II) two perforations in otherwise sealed bags were sufficient to prevent impairment of flavor without greatly increasing the moisture lost by the packaged fruit. In none of these perforated packages, however, was there an accumulation of CO_2 gas sufficient to enhance the condition and appearance of the fruit.

Decay. Rain-damaged cherries generally are subject to considerable loss from decay. Check lots in the present studies (Table I) showed 17% decay. A marked reduction in decay was obtained in fruit packaged in

certain types of sealed cellophane, Pliofilm and Reynolon (polyethylene) films. This reduction in decay was obtained only at the expense of gas injury to the fruit. In none of the films where dessert quality remained normal was the amount of decay reduced below that found in the check lots.

Data in Table II show that when perforated or crimp-folded and stapled bags of the various films were used, decay was not greatly different from that in the check lots.

Moisture loss. The loss in weight (moisture) was generally held to less than one-half of 1% by packaging in Reyfoil, Reynolon (polyethylene) or Pliofilm. Table I shows that weight losses were approximately 1.5% in cellophane; 2% in Kodapak II (butyrate) and 4.5% in the check packages. A comparison of the moisture losses shown in Table I and II shows that vapor transmission rates of the various films were not greatly altered when the containers were perforated or folded and stapled.

Appearance of packages. Pliofilm and Reynolon (polyethylene) packages fogged so completely when placed in storage at 36 deg. F. that their contents were not visible. The cellophanes fogged badly, but not solidly. Kodapak II (butyrate) remained clear, as did the paper bags faced with 100FF Pliofilm. After 72 hrs. at 36 deg. all perforated and stapled bags were free from condensed moisture; after 96 hrs. all sealed 75FF-Pliofilm containers were clear and the cellophanes were nearly clear; Reynolon bags remained quite foggy. After 120 hrs. of storage all films were free from condensed moisture to the point where visibility of the cherry fruits was not impaired. As far as freedom from fogging was concerned, Kodapak II gave little or no trouble. When the packaged lots of fruit were removed from 36 deg. to a room temperature of 75 to 80 deg., about one-half hour was required for the more moisture-resistant films to lose their foggy appearance.

Appearance and dessert quality of fruit. Immediately following 11 days' storage at 36 deg. F., check lots showed considerable browning and shriveling of the stems. Both the fruit and stems were the least attractive of any of the samples. The stems of the fruit packaged in Kodapak II (butyrate) film were slightly more green and turgid than those of the check lots, but were not as desirable in appearance as those packaged in Pliofilm, cellophane or Reynolon (polyethylene).

The appearance of the fruit was similar when packaged in either the 75FF or 50P.F Pliofilm. The fruit was generally brighter when in the sealed bags than in either the perforated or the crimp-folded and stapled samples. The flavor of the fruit in the sealed bags of both types of Pliofilm was either flat and carbonated, or the dessert quality of the fruit impaired (anaerobic taste) when in the presence of a high accumulation of carbon dioxide gas. The 50P.F film also crinkled badly, a characteristic that detracted from the appearance of the packaged product because of undesirable light reflection.

The Reynolon (polyethylene) films provided good visibility of the fruit, better than Pliofilms or cellophanes, and only slightly less visibility than Kodapak II (butyrate) which was ideal. There was no apparent difference in taste or appearance of the fruit in the Pliofilm and Reynolon series. In sealed bags where CO_2 gas concentrations were high and oxygen probably too low, fruit flavor was seriously impaired.

TABLE III—OBSERVATIONS OF STEMLESS BING CHERRIES PACKAGED IN VARIOUS FILMS[1]

Type of film	*Type of container*	*Maturity*	*Loss of moisture by fruit, %*	*Decay, %*
Pliofilm 100 FF[2]	Sealed bag	Dark red	0.86	44.2
		Light red	2.03	10.7
Kodapak II No. 130 (butyrate)	Sealed bag	Dark red	3.50	41.6
		Light red	3.55	6.3
Pliofilm 50 P.F[3]	Sealed bag	Dark red	0.85	30.0
		Light red	1.41	5.5
Check sample	Std. lug	Dark red	4.80	27.9
		Light red	5.31	8.3

[1] After storage at 36 deg. F. for 11 days and holding for two additional days at 75 deg. to simulate transit and marketing.
[2] Coated paper bag with one full facing made of FF 100 N.F. Pliofilm.
[3] Containers evidently developed small leaks—no significant accumulation of CO_2 gas.

There was no detectable difference in the appearance of the fruit packaged in 300 or 450 LSAT cellophane. In sealed bags all fruits were brighter in color than those in the stapled or perforated lots. Stems were generally green and little different from those in Pliofilm or Reynolon (polyethylene) and, as in the case of the latter films, dessert quality was impaired when high concentrations of CO_2 gas were encountered. Due to the crinkling of cellophane in the presence of moist atmosphere, light reflection gave the fruits an old or unfavorable appearance.

Reyseal and Reyfoil aluminum foils afforded no view of the packaged commodity and did not give the cherries a brighter appearance or retard the development of decay. Due to the development of small pinholes as a result of handling, carbon dioxide gas retention of these foils was not comparable to that of the Pliofilm, Reynolon or cellophane series. The metal foils did, however, greatly reduce the moisture loss from the cherries.

Visibility of cherries in both of the Kodapak II (butyrate) films was excellent. Carbon dioxide accumulation in the sealed bags was low and as a result decay and dessert quality of the cherries were similar to those of the control lots. Packaging of cherries in a fascimile of the Dobeckmun windowed tray overwrapped with Kodapak II No. 200 produced a sealed package much more attractive than similar fruit held in conventional bags made from the same film. The tautness and ideal visibility through the Kodapak II film as an overwrap imparted a distinct smartness to the windowed tray. The film characteristics of Kodapak II are more adaptable to the overwrap than to the bag. Fruit packaged in the overwrapped tray lost less moisture than did the check lots in plain paper containers. Its appearance, dessert quality and occurrence of decay were, however, not different from control lots.

Observations on stemless cherries. In the trade, the value of the cherry fruit itself is frequently determined by the appearance of its stem. Frequently the appearance of the stem bears little relation to the actual consumer value of the fruit. At the insistence of grower interests, certain preliminary storage and packaging tests were made with stemless Bing cherries. Since most stemless cherries are obtained during handling at an advanced maturity, (*Continued on page 170*)

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Laminating printed paper

QUESTION: We would be pleased to know if you can advise a system for combining cellophane to printed and colored paper with a transparent adhesive that will not alter the colors or the print.

Would you be good enough to advise us if there is also a varnish or other finish which can be put over such paper to make a finish comparable to laminated cellophane.

ANSWER: There are many kinds of adhesives and equipment which will satisfactorily laminate cellophane or other transparent films to printed and colored paper.

However, if the laminated product is such that it must remain flat, or will be exposed for long periods of time to all atmospheres, then cellophane is not desirable.

The suggested film advisable for use under these conditions would be cellulose acetate, which, when laminated to paper, is much more stable and will remain flat under a wider range of atmospheric conditions. The exact formulation of the transparent adhesive will depend upon many factors, i.e., the particular film used, the type of color or ink, the type of finish on the paper, the equipment used to apply the adhesive and make lamination, as well as the end use of the laminated structure. Most companies which manufacture adhesives and formulate the synthetic resins can make a satisfactory adhesive for your purpose.

There are a great many films, lacquers and other coatings that can be put on printed paper to develop an excellent gloss and surface appearance.

The final choice to be made of such coatings will depend, of course, upon the end use of the varnished paper, cost factors, the equipment available and similar factors. However, in general, lacquer or varnishes are not fully comparable in finish and durability with laminated films.

Heat-sealed glassine bags

QUESTION: One of our products is packed in small glassine bags which are given a subsequent heat treatment partially to sterilize and to develop flavor. We have had trouble from time to time in our plant and receive complaints from customers of breakage of the bag even though it is put into a folding carton. Can you suggest a stronger material than glassine for this product and process?

ANSWER: Glassine is apparently strong enough for your product, but it becomes brittle as a result of the heat which it undergoes. The difficulty arises from the fact that this heat treatment is causing the glassine to lose moisture, which reduces its plasticity and makes it more susceptible to tearing or other failures in cartoning and in use. The embrittlement is variable due to differences in atmosphere humidity and also because the product may have variations in moisture. It is suggested that you add moisture to your heat processing if this can be done without altering the character of this treatment. Moisture can be added during the heating cycle by the use of trays of water or a very carefully controlled small steam spray.

Another method that is suggested would be to use glassine which has been plasticized so that it does not become brittle after processing. There are a variety of plasticizers used in glassine and the amount of each can be varied. It would be best for you to obtain samples of various kinds of plasticized glassine to see which is least affected after tests have been made in your process and equipment.

Either the use of plasticized glassine or the addition of some moisture to the heat process will effectively solve your problem.

Protective visibility package

QUESTION: One of our products would benefit by having air excluded from it. This product is a semi-perishable item and is handled either iced or in cool cabinets. Can you tell us of a printed visible package which is very strong and can be used in hand operations?

ANSWER: Your product apparently has a limited shelf life even under optimum conditions and also must be handled and stored under controlled conditions. Under these conditions a package which allows a very small air (i.e., oxygen) input would probably be entirely satisfactory. This small air input could come from either of two causes, diffusion through the film or by leakage through the seals and seams. The total air input should be kept as small as possible by the selection of the proper film, package construction and sealing methods. There are several films which could meet these conditions.

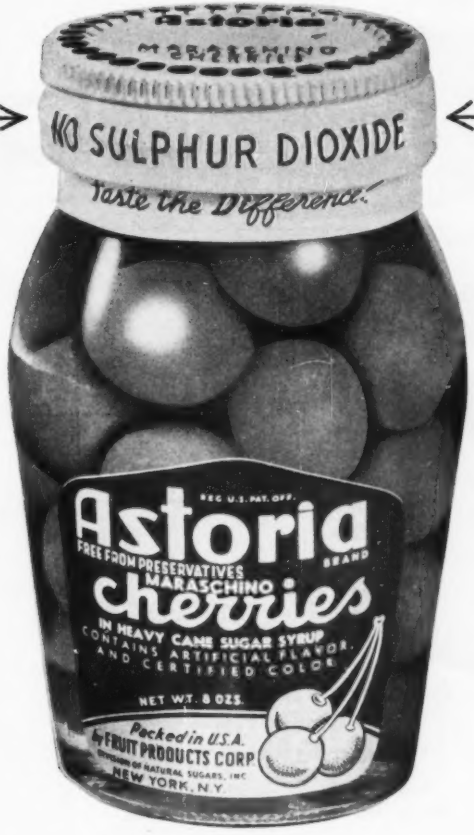
Rubber hydrochloride (Pliofilm) would appear to be a practical answer. This film can be readily printed, it is strong and transparent and it can be fabricated into pouches or tubes by heat sealing. The air permeability of the film is low, particularly under cool conditions.

Certain grades of cellophane might also be effective if more than one layer were used and if it were formed in a manner to make it durable enough under the necessary conditions of storage and use.

Makes its point at point-of-sale with CEL-O-SEAL



REG. U. S. PAT. OFF.



What's the best way to get across an important sales point to the self-service shopper? "Put it where she's sure to see it . . . on a 'Cel-O-Seal' band" was the wise conclusion of the makers of Astoria Cherries.

A survey in a test market shows Astoria Maraschino Cherries with "Cel-O-Seal" bands selling 3 to 1. "We know 'Cel-O-Seal' certainly helps make this record possible," says Charles H. Meyer, Sales Manager of Natural Sugars, Inc. "We have a powerful sales point when we can say that our product does not contain sulphur dioxide. 'Cel-O-Seal' not only impresses shoppers with our sales message, but assures us that our product is not tampered with, and that flavor is sealed in."

Make your product stand out on display . . . with a colorful "Cel-O-Seal" cellulose band, indelibly printed with your sales message. We'll be glad to help you design a distinctive, sales-building band for your product. Just write "Cel-O-Seal" Division, E. I. du Pont de Nemours & Co. (Inc.), 2522-A Nemours Bldg., Wilmington 98, Del. "Cel-O-Seal" bands are also sold by Armstrong Cork Co., Lancaster, Pa., and I. F. Schnier Co., San Francisco, Cal.

DU PONT "CEL-O-SEAL" BANDS

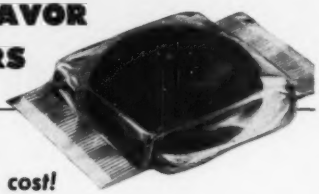
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BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

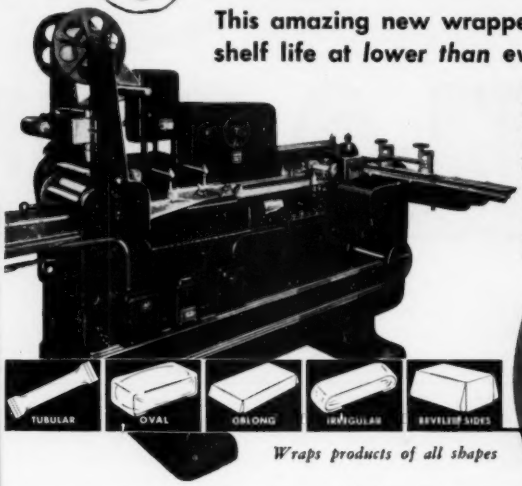


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This amazing new wrapper DOUBLES shelf life at *lower than ever production cost!*



Wraps products of all shapes

Now, you can wrap even your most fragile and irregular shaped products in single or multiple package units *without breakage* — fully glued or heat sealed to keep moisture in . . . dryness out, for "Oven Freshness." No other machine like it! Uses wrapping materials of all types at continuous high speed production of up to 120 units per minute. Cuts material and labor costs, too — Only one operator to feed and one helper to box pack are required. Ideal for numerous bakery products. Write for complete details and illustrated brochure.

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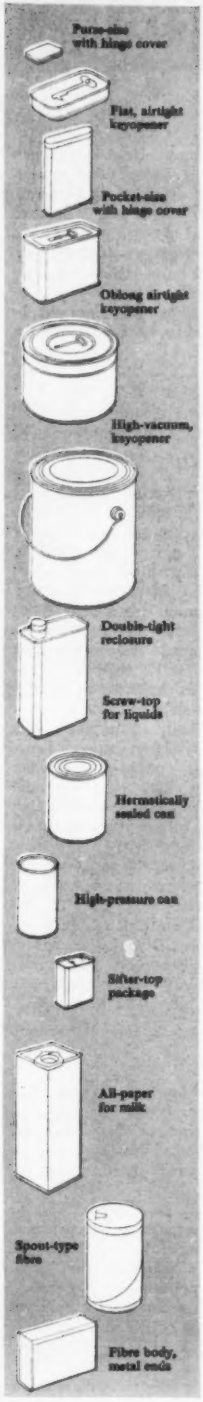
The SEALTITE SYNCHROMATIC

Produces a *BETTER PACKAGE* from a Standard Paper Bag at Big Savings

Write for Complete Information

CONSOLIDATED PACKAGING MACHINERY CORP.

BUFFALO 13, N.Y.



VERSATILITY..that may solve a packaging problem for you

On this page you see thirteen different types of containers, adaptable to hundreds of different packaging problems and in actual use by scores and scores of different industries.

What you do *not* see here are the many *other* types of containers pioneered and developed by Canco.

Now—add it all up—and you get *versatility*, the art of being many-sided, in creating packages for hundreds of specific packaging problems.

This art has been practiced by Canco since 1901.

There is hardly a major development in metal and fibre packaging that this keen, alert organization has not pioneered.

When you remember that Canco service also includes advice on processes, filling, closing, label design, and marketing, you can see that there are definite advantages to doing business with a versatile package manufacturer.

CALL CANCO FIRST

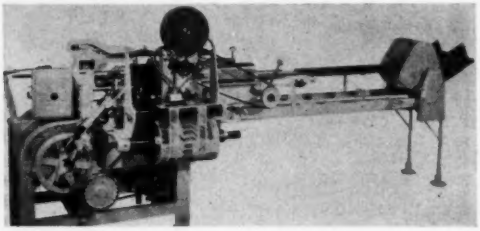
AMERICAN CAN COMPANY

New York • Chicago • San Francisco • Hamilton, Canada

Equipment and Materials

CARTON-WRAPPING MACHINE

Illustrated is the new, small, fully-automatic carton-wrapping machine produced by Hayssen Manufacturing Co., Sheboygan, Wis. Mechanically simple and sturdily constructed to insure a long operating life, these machines are available in small



or large frame models to accommodate a wide range of sizes with speeds up to 50 packages per minute. The model shown has an automatic U-board feeder, electric eye and a top labeler and printer. The machine is available with various attachments, such as operation with zip-tape opening, extended infeed conveyor of any length, wrapping with Pliofilm and acetate, or glue sealing for use with kraft and other papers, as well as under folders for bottom seal only.

FOLDS AND STACKS TEXTILES

Sjöström Machine Co., Lawrence, Mass., has developed a machine for folding, counting and stacking textile materials such as towels, napkins, pillow cases, etc. The principle of the machine is based upon a fixed center plate and two side plates which shuffle in and out making the sideways fold. The longways fold is then made and the article is stacked and counted. While this machine is intended primarily for textiles, it may be used on vinyl and other plastics, it is claimed.

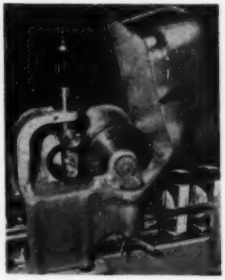
STRONGER PRESSURE-SENSITIVE TAPE

An extra-heavy-duty, pressure-sensitive tape made with glass has been announced by the Minnesota Mining & Manufacturing Co., St. Paul, Minn. This "Scotch" brand filament tape No. 890 is expected to be especially valuable for palletizing jobs, banding of steel coils and pipes and strapping of fibreboard cartons for domestic as well as foreign shipment. Said to be three times stronger than the first two filament tapes announced earlier this year, the new tape has an acetate film back and glass filaments instead of rayon. These filaments are reported to be permanently imbedded in a resilient, shockproof rubber adhesive on tape, providing 500 lbs. of tensile strength per inch of width, with a shock resistance twice as great as the two previous tapes. Its tear resistance is claimed to be far greater than can be measured on the ASTM-approved Elmendorf tear tester. It is applied by being hand wrapped around a load and back on itself and sticks immediately on contact. Its makers suggest its use for palletizing due to its minimum stretch under tension, which is reported to be 6% as compared to 15% for its predecessors. Deliveries of the tape in 72-yd. lengths and in standard widths of 1/2, 3/4 and 1 in. are expected to begin in the second quarter of this year, though sample rolls are available immediately. First production deliveries will be of transparent tape, and standard colors such as black, white, red and blue will be available shortly thereafter. Other widths and colors will be produced on special order. Both of the previous filament tapes made will be continued.



CAN MARKER

Bruce Engineering Corp., San Francisco, Calif., has introduced a simplified can marker for continuous coding, said to have a speed of up to 600 cans per minute. Completely self contained, with all power furnished by the cans moving along the conveyor line, this Bruceway machine affords uninterrupted marking as the cans rotate a pair of star wheels which in turn actuate the stamping wheel and the ink-metering pump. Any required number of digits in single or multiple rows can be stamped. Ink consumption is said to be about a pint a month as compared to about 5 gal. for other equipment.



The body of the machine is a heavily ribbed casting. Vertical shafts operate in large oilite bearings and the horizontal drive shaft is supported by ball bearings. Gears and star wheels are splined to the shafts to assure precision indexing and constant adjustment. The marker can be installed at any convenient point on the conveyor line. It is mounted by means of two flanges on each side, fastened by bolts through the conveyor frame. Live rubber shock mounts provide automatic height adjustment for uniform printing. Ink is transferred to the stamps by means of a spreader wheel which distributes it evenly over the inking roll where it contacts the stamps. The ink is said to dry immediately and not to be affected by moisture on the cans prior to stamping.

PLASTIC-FABRIC BAGS

Having found the proper adhesive for successfully laminating polyethylene film to fabric and burlap, Bemis Bro. Bag Co., St. Louis, Mo., is now offering bags made of these laminated materials which combine the numerous advantages of the plastic film with the strength and handling advantages of cotton or burlap.

The Research Laboratory of Bemis claims to have found an asphalt laminating compound that is actually a waterproofing agent in itself. The laminated material thus produced is even more moisture resistant than the polyethylene itself. The adhesive can be used for laminating polyethylene direct to a fabric, such as cotton or burlap, or to a paper sheet between the fabric and the polyethylene. Bags of this type are said to be particularly suited for chemicals and other products which tend to deteriorate ordinary bags in a relatively short time and for products which are susceptible to contamination

Cartoning all sizes

on the NEW JONES CMV constant motion vertical CARTONER

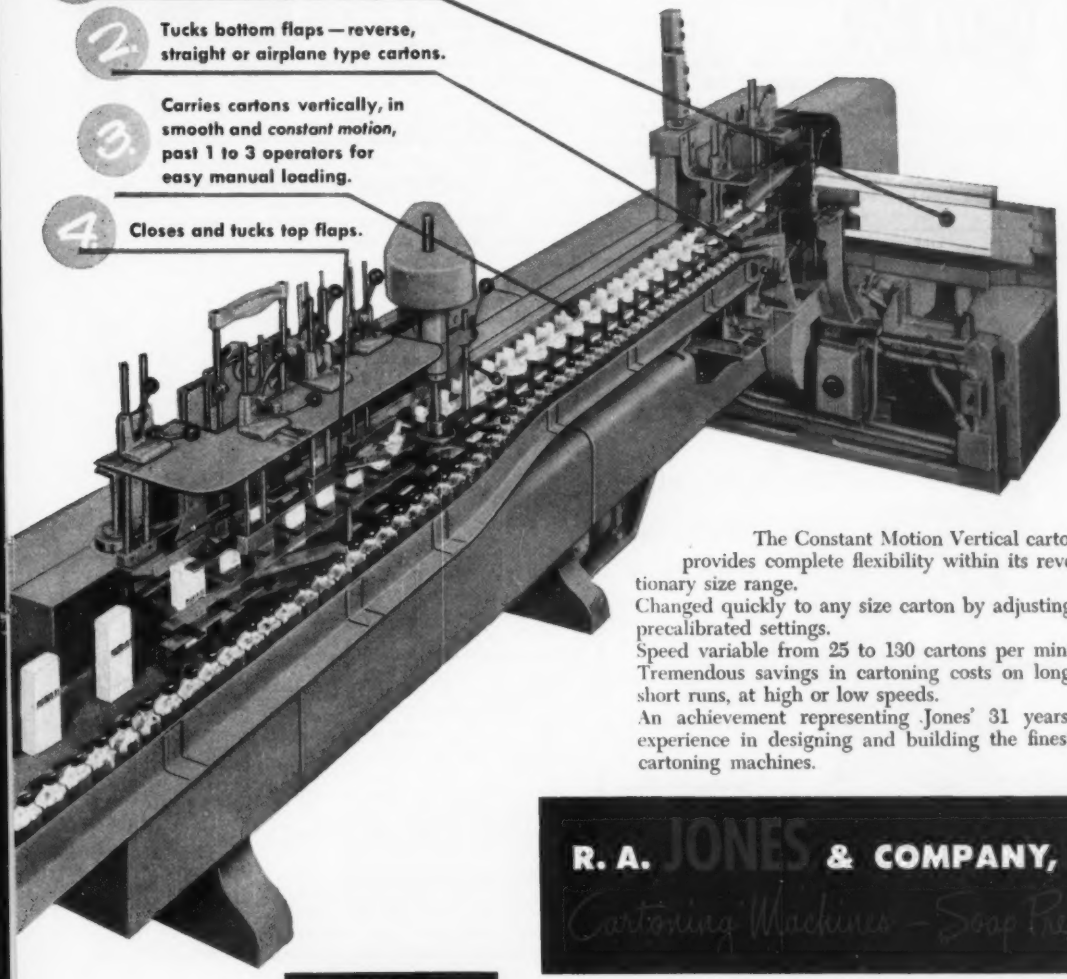
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3 1/4" x 3 1/4" x 8"

TO

3/4" x 1/2" x 2 1/2"

1. Feeds and opens cartons — all sizes within range indicated.
2. Tucks bottom flaps — reverse, straight or airplane type cartons.
3. Carries cartons vertically, in smooth and *constant motion*, past 1 to 3 operators for easy manual loading.
4. Closes and tucks top flaps.



The Constant Motion Vertical cartoner provides complete flexibility within its revolutionary size range.

Changed quickly to any size carton by adjusting to precalibrated settings.

Speed variable from 25 to 130 cartons per minute.

Tremendous savings in cartoning costs on long or short runs, at high or low speeds.

An achievement representing Jones' 31 years of experience in designing and building the finest in cartoning machines.

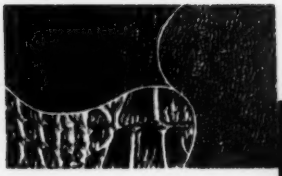
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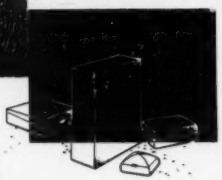
Cartoning Machines — Soap Presses

Specifications Available

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looks . . . feels . . . wears like top-grain leather—*yet costs a fraction of its price!* Only Uni-Mark makes Fabricated Leather* —and only Fabricated Leather* contains genuine leather fibers.

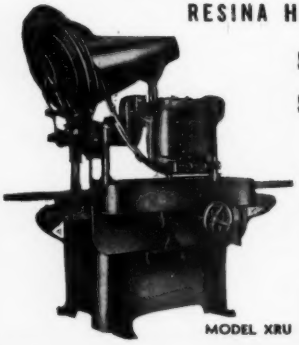
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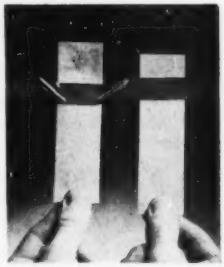
Equipment and Materials

Continued

and moisture damage. The manufacturer states that the sturdy construction of such bags suggests their use for export and other types of shipment where exposure and rough handling are involved.

ANTI-ADHESIVE PAPER

The Central Paper Co., Inc., Muskegon, Mich., announces a silicone-treated kraft paper that is nonadhesive to rubber, asphalt, pressure-sensitive tapes and most adhesive materials. The nonadhesive qualities are attained by treatment with Dow Corning DC-1107 Silicone through a process evolved in The Central Paper Co.'s laboratory. In appearance, color and feel, this paper is the same as an untreated paper; tensile strength, tear resistance and water-vapor transmissions are not altered. The accompanying illustration shows how ordinary paper pulls tape, while the special treated paper on the right slip-slides free from under the tape. The release characteristics of this treated paper suggest its use as shipping containers for such materials as asphalt. It also has many industrial applications, such as interleaving sheets for uncured rubber stock, pressure-sensitive rubber tape, etc. The company will send samples in either high or medium finish of this water-repellent paper on written request to them direct.

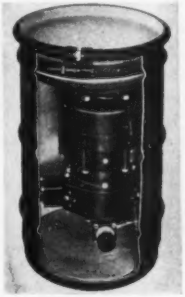


GOLD FOR DECALS

Development of a 23K gold film application makes possible the use of gold for decalcomania purposes on a mass production basis, according to Palm, Fechteler & Co., 220 W. 42nd St., New York. Gold effects for such decal usages as gold striping, decorative display, etc., which have always presented a problem, are now possible to achieve with the application of this decalcomania film which affords good appearance and wear, the company states. It is obtainable in lengths up to 45 in. and in widths from 1/4 to 2 inches.

STEEL CONTAINER WITH INNER PACK

Now commercially available from Steel Drum Packaging & Acc., Inc., 9505 Sandusky Ave., Cleveland 5, Ohio, is the steel container with inner pack developed during the war for the shipment and storage of machine and aircraft parts. This type of container is unique in that it is designed to hold contents firmly in place, allowing an inch clearance on all sides, thus affording maximum protection against damage and keeping the product ready for use immediately upon opening the container. The product is bolted down to special mountings provided and the placement of a dehydrating agent, like silica gel, keeps it from corrosion and rust for years. The company states that these containers have proved to be economical time savers over crating and other methods of shipping and have been reused as many as 12 times. Type-



CARLON FILM

(POLYETHYLENE)

FOR PACKAGING

•

Check these Standards:

✓ **PRECISION WIDTHS**
at standard commercial tolerances, plus and minus 1/32 inch, closer tolerances at no extra cost.

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✓ **TUBING FURNISHED**
in all widths 1 inch to 36 inches from .0015 wall up

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✓ **NARROW WIDTHS**
are sold at low standard prices.

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✓ **AVAILABLE**
in quantities, flat or gussetted.

YOUR INQUIRIES RECEIVE OUR PROMPT ATTENTION . . . YOUR REQUIREMENTS ARE GIVEN OUR BEST SERVICE.

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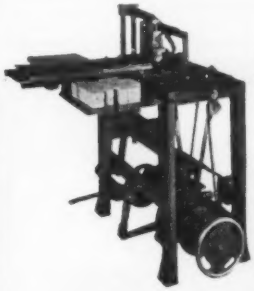
All of PETERS Carton Packaging Machines have been designed with one thought in mind—to offer the packaging field the finest in carton packaging machinery.

At the present time PETERS packaging machinery is in use all over the world. These machines have proven themselves to be the finest by their low maintenance costs, high productivity, ease of operation and sturdy construction.

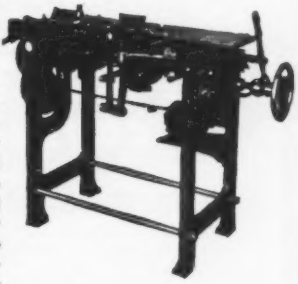
If you would like to cut your packaging costs and increase your profits, investigate the merits of PETERS Automatic and Semi-Automatic Carton Packaging Machinery.

Besides the "Junior Model" machines illustrated below, PETERS has available a "Senior" line of packaging machines to fill high production requirements.

Send us samples of the various cartons you are now using. We will gladly make recommendations for your specific requirements.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35–40 cartons per minute, requiring only one operator. After the cartons are set up they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several different size cartons.



This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35–40 cartons per minute, requiring no operator. After cartons are filled they enter machine on conveyor and are automatically closed. Can also be made adjustable to close several different size cartons.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

FLOWERS
BY
CARDINAL

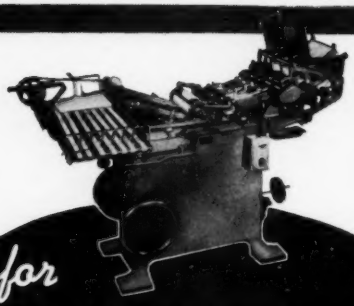
HOLIDAY-IZE *ANY* PACKAGE
***ANY* TIME OF THE YEAR**

A bright spot of color on your package, in the form of a delicate spray of cloth flowers, is a sure stopper of the feminine shopping eye.

These exquisite little blooms are custom made in any quantity—color, size and number of blossoms in a spray to your specifications. Prices are low. Service is fast.

Ask for samples and prices at once.

CARDINAL
FLOWER AND NOVELTY CO.
61 East 8th Street New York, N. Y.
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for
IMPRINTING
CODING

THE MULTIPRESS

Finest high speed small unit made for every type of imprinting on folding cartons, paper products, booklets, labels. 6500 impressions per hour. Ideal for imprinting batch numbers, blockouts, flavors, colors, prices, codes, dates, sizes. *MULTIPRESS solves your coding problems!*

MULTI PRESS

B. VERNER & CO., INC.
52 DUANE STREET, NEW YORK 7, N.Y. BA 7-1466-7

Equipment and Materials
(Continued)

writers, generators, small engineers and other sub-assemblies can be shipped in this type of container. They are available in 4- to 55-gal. capacity and there are five standard methods of mounting. Special mounting packs will be engineered where necessary. Photograph shows the container with metal cup mount being used for aircraft engine parts.

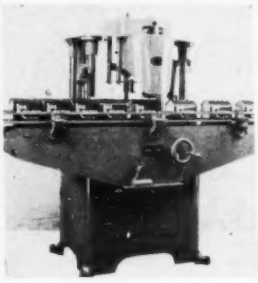
MAKES HEAT-SEALED DRAWSTRING BAGS

Packers of citrus fruits and other produce desirous of using Pliofilm or polyethylene bags with a drawstring can now fabricate this type of container on the Chaffee Rotor-Sealer with specially designed auxiliary equipment. The drawstring may be placed in the hem before the bag is made and sealed, or by using the standard machine without the auxiliary mechanism, the bag may be produced and drawstring threaded subsequently. Tests made by the machine maker, Ralph Chaffee & Co., 2168 Market St., San Francisco 14, Calif., have shown that a bag of 1.5-mil Pliofilm did not fail at the hem and drawstring when subjected to a 70-lb. pull test. The wide versatility of this machine is attributed to its forced cooling feature, the makers state.



CAN SEALING MACHINE

Resina Automatic Machinery Co., Inc., Brooklyn 31, N. Y., is offering a new semi-automatic can sealer, for use in the edible-oil industries, said to be the first machne of its type. It will seal cans of half-pint to gallon size using the standard 1-in. seal at a rate of 20 to 60 cans per min. and is said to give a smooth, leakproof seal. Cans may be of the on-center or off-center opening type. Seals are placed on the can opening by hand and from there on the entire operation is automatic. Change-over from one size to another is said to take less than 10 minutes.



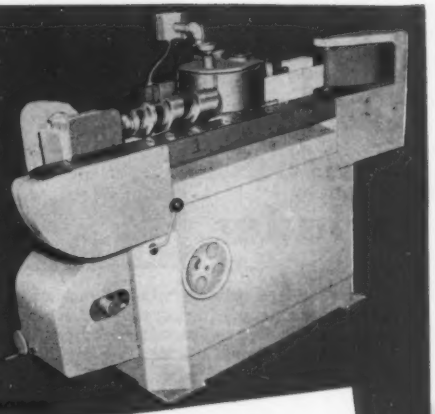
CELLULOSE ACETATE BONDING AGENT

"Acetate cement," introduced by Schwartz Chemical Co., Inc., 326 W. 70th St., New York, should prove of interest to fabricators of cellulose acetate containers, displays and miscellaneous products. It was developed, the manufacturer states, to answer a specific need for an effective adhesive for acetate that would be safer for industrial use than acetone. This solvent mixture, it is said, is far less volatile, does not require a fire department permit and can be stored safely in unlimited quantities. The company points out that acetone often evaporates before it has an opportunity to soften, penetrate and firmly weld an acetate assembly, while this liquid bonding agent evaporates slowly enough to prevent blushing and to insure good penetration and an excellent bond. De-

NO GLUE

NO CHANGE-PARTS

ECONOMY AT ANY SPEED



With amazing simplicity and low maintenance

That's why so many CUSTOMERS with widely different conditions prefer the FULLY AUTOMATIC Label-DRI*



DIFFICULT TAPER JARS—
Here's where higher-than-line speed prevents "bottle-climbing" and breakage; label-feed activated *only* when and as containers arrive at the labeling position. Handles 4 sizes without change parts—without glue—without time-loss.



PERMANENT PERFECT LABELING—
A "must" to back up costly advertising at point of purchase; no loose edges or blisters in labeling. Full surface adhesion without glue; labels on wet or dry containers at a "line speed" of 280 per minute, with no change parts for all three sizes.



SMALL PLANT; EASY MAINTENANCE AND SIMPLICITY OF OPERATION—
No glue—that's the big point here because it eliminates all fussing and operating adjustments. Makes it ideal for a "one man plant" even at speeds as low as 75 per minute.



NO CHANGE PARTS; QUICK CHANGEOVER; SHORT RUNS—
This plant averages 7000 jars per hour; frequently with change of size every hour.

Ask about Label-DRI's 30 ADVANTAGES!

NEW JERSEY MACHINE Corporation

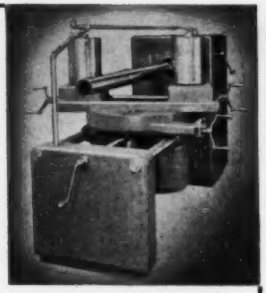
1510 WILLOW AVE. • HOBOKEN, N. J.
Factory Sales and Service Branches at
Chicago, 325 W. Huron Street
Cincinnati, 1701 Carew Tower
Los Angeles, 2500 W. 6th St

*Reg. U. S. Pat. Off. 903

The only labeling unit that eliminates change parts and provides full **8-hour volume during every 8-hour day**

no fussing with glue!

heavy spiral tube winder



Here's a superbly engineered and constructed machine for manufacturing fine cylindrical paper products. Tubes produced range from ¾" to 13" I.D. and can have up to 30 plies or 1" wall thickness.

You'll be TICKLED to TICKLE this Winder. The Jerk is gone—JOGGLE the Clutch Bar and you'll be amazed how the Webs are eased into the wind.

You're out of the JUNGLE of Shafts, Motors, Drives and Belts when you thread this Winder. Walk around this Winder with surety and safety.

Send for full particulars

Another modern converting machine as advertised on Page 154

Machinery and Products Engineering Corp.

Paper Conversion Machinery

3630 Frankford Ave. Philadelphia 34, Pennsylvania

FOR BETTER PACKAGING!

PARTITIONS

THAT PROTECT AND SAFEGUARD YOUR PRODUCTS

•

IMMEDIATE ATTENTION
Given to Requests for Estimates

Prompt Deliveries Guaranteed



Reasonable Prices Assured

WRITE, PHONE, WIRE for QUOTATIONS on YOUR REQUIREMENTS

PETER PARTITION CORP.

Manufacturers of Paper Board Partitions

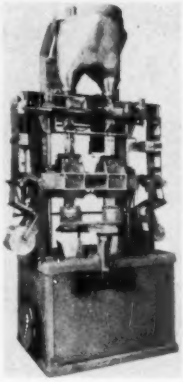
19-21 HEYWARD STREET
BROOKLYN 11, N. Y.
Telephone: TRiangle 5-4033

Equipment and Materials
(Continued)

scribed as water-white, free-flowing and non-toxic, this acetate cement is available for immediate delivery in quart, 1-gal. and 5-gal. cans, as well as in 55-gal. steel drums.

IMPROVED PACKAGE FORMER-FILLER

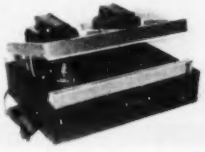
Transparent-Wrap Machine Corp., Hasbrouck Heights, N. J., announces a new improved model of its Transwrap automatic packaging machine, with auger or volumetric feed mechanism, which forms, fills and heat seals packages for such products as pastes, powders, free-flowing, non-free-flowing and uniform-cut products. Developed primarily to package a dehydrated soup mix, the new machine can be used for other products, such as those mentioned, that can be discharged from either type of feed mechanism. The machine produces packages of the fin-seal type, using laminated and plain heat-sealing foil, or heat-sealing coated papers, but not cellophane or kindred packaging materials.



Considerably simplified in construction, it has fewer working parts, thereby reducing maintenance and facilitating operation. Additional improvements over the previous model are its ability for registering printing uniformly on both sides of the package. Heretofore, the back of the package was never centered, necessitating non-uniform or random type of registry on that side. Another important innovation is its simplification of the feeding mechanism for the packaging material, which reduces the number of rolls required in operation from four to two. Production capacity is 40 packages per minute, speed depending upon the commodity to be discharged and the package size required. Manufacturers claim that in addition to providing substantial economies in reduced maintenance, this model effects a 20% saving in packaging material.

IMPULSE HEAT SEALER

The Vertrod Corp., 17 Williams Ave., Brooklyn 7, N. Y., is marketing a low-voltage, transformer-operated, impulse-type sealing machine for heat sealing polyethylene and other plastic films. The machine can produce a variety of welds for packaging or industrial applications. Bars from 6 to 24 in. can be provided. The illustrated model has a 12-in. bar for either a hand- or foot-operated machine. The sealer operates from a standard 110-volt AC outlet. Time and temperature are dial controlled, with the work-time cycle from ½ to 3 seconds.



Various types, styles and widths of welds can be obtained on the same machine. One such type automatically cuts off segments of a tube or sheet simultaneously with the sealing weld. Another type is the wide-ribbon weld, the dimension of which may be altered without changing the heating bar.

In operation the film to be heat sealed is inserted between the jaws and they are clamped with pressure. At the instant of clamping, a microswitch closes the circuit between the nichrome strip mounted on the lower jaw and the secondary of the transformer. The heating cycle is controlled auto-



Stoway's NEW GASKET-SEAL CONTAINERS

For More Sales... Greater Re-use Appeal

For the first time in the packaging industry an all plastic, airtight twist-seal container with a synthetic rubber gasket seal!

Your products packaged in Stoway containers will have the powerful selling combinations of COLOR and VISIBILITY OF PRODUCT . . . PLUS RE-USE OF CONTAINER which is backed by PROVEN CONSUMER DEMAND!

Made of odorless, tasteless, chip-proof Styron. • Withstands heat to 160°F., cold to −40°F. • Slight twist of the lid makes an airtight seal. • Fits all automatic packaging equipment. • Available in a wide choice of colors and combinations. • Sizes: 5, 8, 12 and 16 ozs.

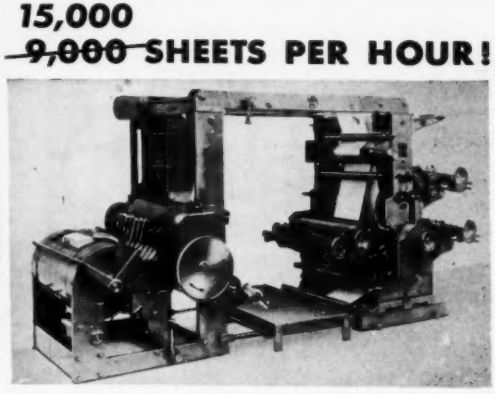
Stoway Containers Stimulate Sales!

For further information and prices write...

SOUTHERN CALIFORNIA PLASTIC COMPANY

1805 FLOWER ST. · GLENDALE · CALIFORNIA





. . . available in cutoff lengths from 9⅞ to 19¾ graduated in multiples of ⅜. All sheets delivered properly aligned to allow removal from top of pile.



FULL INFORMATION ON REQUEST

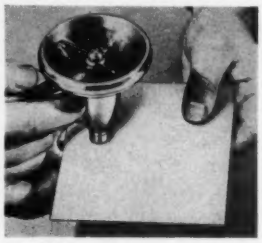
H. H. HEINRICH, INC.
290 VARICK ST., NEW YORK 14

Equipment and Materials
Continued

matically and when, after a short duration it is completed, the jaws of the sealing unit open and the item is removed. The cycle of heat and set, it is claimed, is about one second.

PORTABLE DIAL MICROMETER

The hand-model micrometer illustrated has been specially designed by E. J. Cady & Co., 134 N. LaSalle St., Chicago, Ill., for easy portability and convenience in inspecting, checking and comparing thicknesses of sheet stock, or for fabricated pieces in various locations throughout the plant or on the production line. The glass-covered dial, $2^{3}/_{4}$ in. in diameter, is graduated in thousandths of an inch, while the anvil, $^{9}/_{16}$ in. in diameter, permits calipering of thicknesses up to $^{1}/_{2}$ in. on such items as metals, plastics, boards, papers and foil. Anvils can be supplied with larger or smaller diameters and flat or spherical ends when specified. The instrument is made to close tolerances for accurate calipering and follows the design and mechanism of the company's desk and laboratory-model micrometers. An external adjustment is incorporated for maintaining dial indicator at exact zero. Shaped to fit the hand comfortably, the frame is of cast aluminum, with the lever conveniently located for raising the anvil for insertion of material. The anvil descends with an even pressure, approximately 7 to 9 lbs. per sq. in. (TAPPI standard).



BUCKET ELEVATOR

Designed to handle a wide variety of fragile food and chemical products in conjunction with automatic packaging machinery, the Robo-Lift offered by Counsel Machine Co., North Hackensack, N. J., is said to embody a new feeding principle. The interlocking stainless steel buckets, upon which patents are pending, permit the product to be fed gently from the hopper supply into the buckets by means of a vibrating chute. Such items as hard candies, assorted nut meats and chocolates, as well as powdered and granular products are handled without spillage or breakage. Stainless steel or monel is used for all parts in contact with the material being handled, thus providing sanitary operation. All parts are accessible and may easily be kept clean. This bucket elevator may also be furnished as a portable unit.



MACHINE ROLLS AND WRAPS RUGS

The Rola-Rug, a machine used in rolling and wrapping rugs, carpets, felt, batting and other flexible materials, developed by Lincoln Products, 900 Passaic Ave., East Newark, N. J., is said not only to save two out of three manhours for such operations, but also affords a neater and more compact roll. Operation tests have shown that the average 9 by 12 ft. rug can be rolled and wrapped in 45 sec. to 1 min., a saving of 2 min. per rug under conventional packaging methods. The firmer roll permits approximately 20% saving of floor space and reduces wrapping-paper needs by the same amount.



"WOULD YOUR CUSTOMERS RATHER READ ABOUT QUALITY . . . . . OR SEE IT?"







Crack sales-promoter Harry Schenberg of the famous Schenberg's Super Markets in St. Louis answers flatly—

"Glass packs have 80% greater sales appeal. Consumers and retailers know quality must be there or the product would not be packed in glass."

To get the enthusiastic selling support of retailers Mr. Schenberg suggests these two things:

1. MORE volume in glass to assure consistent supply.
2. CAPS which can be easily and plainly price-marked.

Show the world you're proud of your pack—pack in glass!

Duraglas TRADE MARK REG. U.S. PAT. OFF.

CONTAINERS SELL ON SIGHT

OWENS-ILLINOIS GLASS COMPANY • Toledo 1, Ohio • Branches in Principal Cities

Get EXPERIENCED PROTECTION



In your Sights!



BARECO
Microcrystalline WAX

Not a sideline . . . not a by-product . . . not something uo be considered second while others come first . . . WAX HAS ALWAYS BEEN BARECO'S PRINCIPLE PRODUCT; your defense against the evils of package contamination. Thousands of users know the big B-Square means top-quality microcrystalline wax, a wax as good as Bareco's many years of experience in the industry can make it. You really owe it to yourself and your product to test this fine protective ingredient. Write Bareco for more information. Samples are available in Black, White and Amber.

BARECO OIL COMPANY

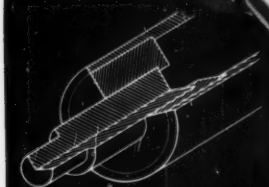
Dept. M— Box 2009 TULSA, OKLAHOMA
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FOR BETTER ANILINE PRINTING

Use no-flex PLATE ROLLS



- CAN'T FLEX OR WHIP
- GROUND FINISH INSURES ACCURACY
- FAST DELIVERY
- LOW IN COST



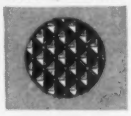
UNCONDITIONALLY GUARANTEED FOR SEVERE SERVICE

CUTAWAY SHOWS HOW EXCLUSIVE PROCESS FUSES ENTIRE JOINT INTO ONE SOLID MASS, INSURING EXTREME RIGIDITY. TUBE CONSTRUCTION REDUCES WEIGHT.

No-Flex — the new plate rolls that completely eliminate flexing and whipping — are your guarantee of a perfect impression. Special high speed lathes and equipment and improved methods of manufacture mean you get precision made rolls, quickly, and at lower cost. All No-Flex rolls are ground finished to your exact specifications and carefully inspected before shipment. The next time you need plate rolls, call Pamarco for faster service, lower cost and a better printing job.

EVENFLO ANILINE INKING ROLLS METER THE INK FOR BEST RESULTS

EVENFLO ENGRAVED ANILINE INKING ROLLERS — Eliminate ink waste, poor quality runs and rejects due to faulty inking and require no time-consuming adjustments. Evenflo Rollers meter the ink in the exact quantity needed, continuously and automatically. Proper inking — without operator attention — saves stock, ink, press down-time and operator fatigue. Using Evenflo Aniline Inking Rollers means high production quality — lower production costs.



ENLARGED VIEW OF ENGRAVED SURFACE SHOWS SCREEN THAT AUTOMATICALLY FEEDS CORRECT AMOUNT OF INK.

Quotations on plate, impression, special rolls and custom equipment supplied without obligation

PAMARCO ANILINE PRINTING PRESSES
EVENFLO ENGRAVED ROLLERS
PAPER CONVERTING MACHINERY

PAPER MACHINERY & RESEARCH, INC.
1014 OAK STREET • ROSELLE, NEW JERSEY



RANSOHOFF'S, San Francisco, uses gift wrapping printed and laminated on Kaiser Aluminum Foil.



GIFT GIVERS are offered plain, embossed and printed patterns in a variety of colors converted from Kaiser Aluminum Foil.

Hint for a prosperous New Year...

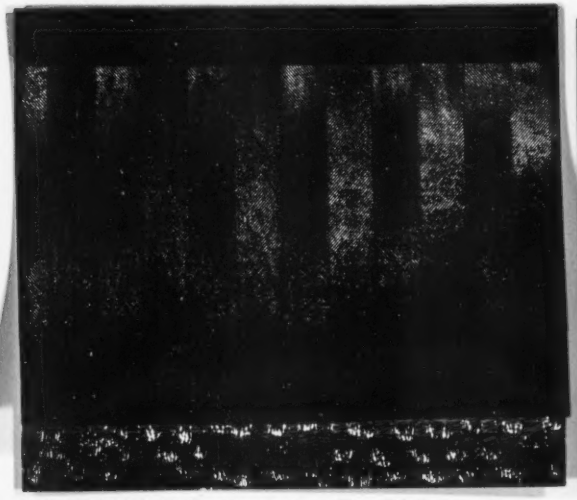
These gift wrappings have all been converted from Kaiser Aluminum Foil.

Which is assurance that they meet the exacting standards of top quality stores, and of discriminating gift givers.

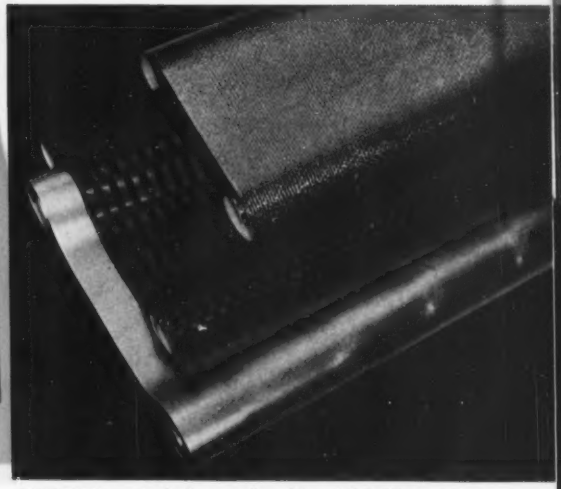
Uniform quality, fast, dependable deliveries, wide range of sizes... these are good reasons to order Kaiser Aluminum Foil now—for a more prosperous New Year!

Kaiser Aluminum & Chemical Corporation produces Kaiser Aluminum Foil.

Kaiser Aluminum FOIL



THESE GIFT WRAPPINGS for consumer use, like all foil shown here, were converted by the John T. Raisin Corp., San Francisco.



THESE ROLLS are typical examples of beautiful gift wrappings converted from Kaiser Aluminum Foil.

SOLD BY KAISER ALUMINUM & CHEMICAL SALES, INC., KAISER BUILDING, OAKLAND 12, CALIF. . . . OFFICES IN: Atlanta • Boston • Chicago • Cincinnati • Cleveland • Dallas • Denver • Detroit • Houston • Indianapolis • Kansas City • Los Angeles • Milwaukee • Minneapolis • New York • Oakland • Philadelphia • Portland, Ore. • Rochester, N. Y. • Seattle • Spokane • St. Louis • Wichita

Plants and People

General Mills, Inc., Minneapolis, Minn., announce the sale of their line of packaging machinery to the **Package Machinery Co.,** Springfield, Mass. **A. D. Hyde,** president of General Mills' Mechanical Division, said that the increased demand on management and plant facilities due to expansion of the company's home-appliance and contract-manufacturing activities made the sale necessary. Package Machinery Co. purchased the Tray-Lock and finished-edge carton set-up machine and ice-cream cartoning unit originally developed by **F. D. Palmer** and re-engineered by General Mills. This brings into the Packaging Machinery Co. fold the complete Palmer line, the major part of which they acquired last July. The Tray-Lock and finished-edge machines form ready-to-fill cartons from flat blanks and require no operator; the ice-cream cartoning units were engineered to set up and close cartons automatically.

Rights to the General Mills line of Vacuflow powder fillers, introduced by General Mills in 1946 to pack free-flowing and non-free-flowing materials by means of a controlled vacuum, were acquired by the **Pneumatic Scale Corp., Ltd.,** North Quincy, Mass., rounding out the line of powder-filling equipment manufactured by that firm.

Allyn C. Beardsell, formerly headquarters supervisor of merchandise packaging and warehouse methods for Western Electric Co., has resigned his post to accept an appointment to the staff of **Container Laboratories, Inc.,** which operates testing laboratories in New York, San Francisco and Chicago.



A. C. Beardsell

The Denton Corp., 2124 Livingston St., Oakland, Calif., has just completed a non-exclusive franchise with **Millprint, Inc.,** Milwaukee, Wis., for the manufacture of Denton's Dent-O-Pak bags. Denton manufactures these transparent bags with glued-on header, as well as the Dent-O-Matic packaging machine. Officers of the company are **Wil Evans,** president; **H. Ray Denton,** vice president and general manager; **A. W. Anderson,** vice president and secretary-treasurer.

The Transparent Wrap Machine Corp., Hasbrook Heights. N. J., announces the appointment of **Diederichs & Griffin Co.** as sales and service representatives for the entire Transwrap line in the Midwest states, with offices at 4753 Broadway, Chicago.

Protective Coatings Corp., now located in its new plant at 510 River Rd., Delawanna, Clifton, N. J., announces the acquisition of **Atlas Package & Container Corp.** of New York City. **Marvin F. Atlas,** former owner of Atlas Package & Container Corp., has been elected vice president and general manager of Protective Coatings Corp.

To devote his full attention to the rapidly growing *Modern Packaging Encyclopedia*, C. W. Browne is relinquishing his duties as Editor-in-Chief of MODERN PACKAGING, effective with this issue. In addition to acting as Editor-in-Chief of the *Encyclopedia*, Mr. Browne will continue to serve MODERN PACKAGING in an advisory capacity and will be available, as always, for consultation with readers of the magazine.

The board of directors of **Acme Steel Co.,** Chicago, has elected **Chester M. MacChesney** as chairman of the board to fill the vacancy caused by the death of **Charles S. Traer.**

At a meeting of the directors of **Nashua Gummed & Coated Paper Co.,** Nashua, N. H., **James R. Carter, II, Walter F. Evans** and **Donald Ramsay** were elected vice presidents of the company. **Winthrop L. Carter, Jr.,** was elected assistant treasurer.

The Chicago office of the **Package Machinery Co.,** Springfield, Mass., has been moved to new and larger quarters at 528 N. Western Ave., Chicago 12, Ill.

The Robertson Paper Box Co., Montville, Conn., manufacturer of folding boxes, is celebrating its 100th anniversary this year.

The Permanente Metals Corp. has announced that its stockholders have approved a change in its corporate name to **Kaiser Aluminum & Chemical Corp.** in order to achieve a closer identification with its principal products—Kaiser aluminum and chemicals. In addition, the corporation's wholly owned sales subsidiary, **Permanente Products Co.,** will be re-named **Kaiser Aluminum & Chemical Sales, Inc.** Production of aluminum foil during October at the Permanente, Calif., plant, according to the corporation, was two and a half times greater than the average for the June-to-August quarter.

The Simplex Wrapping Machine Co., Oakland, Calif., announces a change in the firm name to **Simplex Packaging Machinery, Inc.,** as being more expressive of the products of the company, which now include a wide range of bag-making and other packaging machinery.

Robert C. Ferguson has been elected president of **J. L. Ferguson Co.,** Joliet, Ill., designers and builders of Packomatic automatic packaging machinery. He succeeds **H. Lyle Greene,** resigned. Second son of the company's founder, **J. Lee Ferguson,** the new president was previously executive vice president and treasurer. The senior Mr. Ferguson continues as chairman of the board, with **R. A. Stephenas** vice chairman. The company's West Coast Div. at 210 Mississippi St., San Francisco, continues under **P. D. Bowley,** vice president. **Carl Claus** is vice president in charge of Eastern operations at 99 Lincoln Park, Newark, N. J.



R. C. Ferguson

Perry Metal Products Co. of Brooklyn, N. Y., builder of automatic packaging machinery for pharmaceuticals, announces the organization of a Pharmaceutical Division to expand its activities in this direction. **Frederick H. Guterman,** formerly an engineer and sales representative in the Mid-Atlantic district of General Electric Co., is manager of the new division . The Perry company was associated in work on the "Accofil" filling machine (see "Precision Filling," MODERN PACKAGING, Aug., 1949, p. 86) for high-speed filling of antibiotic powders by Lederle Laboratories.

The Union Paste Co., Hyde Park, Mass., has announced several new appointments in the field, as well as a re-organization of service facilities in the company's main office. **Michael M. Kirk** is the New York State area representative, with headquarters in Syracuse. In the New York and Philadelphia areas, **Robert K. Crowell** is regional sales manager. To his staff, as

Creative Package Design



this corrugated "safety" box

Promotes careful handling... identifies contents... simplifies transportation, storage, installation... speeds up order filling. Strongly printed in vivid red and blue on buff-colored, linen-finish corrugated board, its message of caution is unmistakable—yet the design reflects product quality. For better package action—increased protection, improved appearance, more "sell" and lowered costs, consult Hinde & Dauch, Executive Offices, 5003 Decatur St., Sandusky, Ohio.

H&D®

HINDE & DAUCH

Authority on Packaging

Send for Booklet "Pack to Attract," a Valuable Portfolio of Successful Merchandising Ideas from The H & D Package Laboratory.



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FASTER PACKAGING



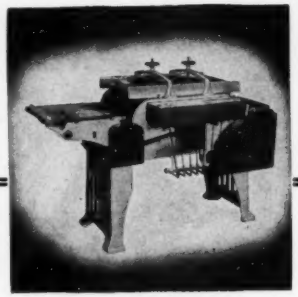
with the Anderson Portable Bagger

It's easy to bag products with this smooth operating machine. Simple adjustments for height . . . tilts forward or backward to give the most comfortable operating position. Stainless steel trough holds 200 bags . . . adjustable to bag sizes. Blower with air filter opens bags and keeps them free from foreign matter. Reasonably priced . . . get the facts.

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Conveyor Type, Model W-700

A high production, sturdy apparatus well adapted for automatically feeding, washing and delivering up to 6500 vials every hour. It is presently being used by several of the world's leading producers of penicillin, streptomycin, etc. A set of specially fabricated multi-step washing jets is supplied with each machine. These jets are designed to handle without the usual adjustments, the individual user's different size vials and vial openings. Model W-700 allows each container to be subjected to 4 outside washes and to be internally injected with as many as eight different washing fluids. This machine is also built to handle different size ampuls.

Write for literature on the AMPWASH and our other ampul filling and sealing equipment.

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PRODUCTS COMPANY
Established 1922
300 Fourth Ave. New York 10, N. Y.

PerfeKtum

Plants and People
Continued

salesman and technical field men, have been added two new representatives: **Donald Ellis,** in the Philadelphia area, and **Robert F. Rader,** in the New York City area. A new Customers' Service Department under the direction of **George L. Snow** has been announced by Union Paste. The department combines in one area all services of the sales and order departments.

T. C. Sheffield has been appointed vice president of **The Sheffield Tube Corp.,** New London, Conn. Mr. Sheffield is in charge of the corporation's West Coast offices in Los Angeles and was formerly manager of its Chicago office.



T. C. Sheffield

The General Box Co., Chicago, has announced the election of **E. E. Ames** of Crawfordsville, Ind., as chairman of its board of directors. Two new board members have also been elected: **W. C. Embry,** vice president in charge of the Louisville plant, who fills the position occupied by his father, the late **Harry W. Embry;** and **J. F. Ferguson,** vice president and sales manager. Both Mr. Embry and Mr. Ferguson will retain their old duties in addition to their new responsibilities.

C. A. Southwick, Jr., technical editor of MODERN PACKAGING, has been appointed to the Committee on Equipment and Material of the Research and Development Board of the Department of Defense. This appointment includes membership on the Panel for Packaging, Packing and Preservation. Mr. Southwick conducts his own package engineering and consultation service, with headquarters at Hope, N. J.

The Harcord Mfg. Co. formerly a division of the Meehan-Tooker Co., is now operating independently and has no connection with any other organization. Following a recent reorganization, the officers are: **Maxwell B. Gold,** president; **John J. Albert,** vice president and secretary; **Jack D. Roberts,** treasurer; **William H. Krenke,** assistant secretary and general manager.

D. C. Lathrop, Los Angeles representative of **Phoenix Metal Cap Co.,** has moved his office to 1855 Industrial St.

George N. Lee has been appointed sales manager of the Eastern division of the **U. O. Colson Co.,** lithographers, of Paris, Ill. His office will be located at 51 E. 42nd St., New York.

Chester A. Gage, vice president in charge of sales for **National Starch Products, Inc.,** and **National Adhesives Division,** is now making his headquarters at Chicago in order that a close personal contact between all sales offices may be maintained.

Max Christensen has been appointed supervisor of plastic sales for the Chicago territory of **The Dow Chemical Co.** to succeed **Floyd J. Gunn,** who was recently named head of coating sales with headquarters in Midland, Mich.

The Dixie Wax Paper Co., Dallas, Tex., on the occasion of the firm's celebration of its 25th anniversary, announced that four sons of the founders have been elected to the company's board of directors: **Thomas S. Williams, 3rd, Louis T. Kimple, William H. Bryce, Jr.,** and **Stuart Moore, Jr.**

Northwestern Bottle Co., St. Louis, Mo., and **Container Service Co.,** Los Angeles, Calif., have been appointed by **Plax Corp. Div., Hartford-Empire Co.,** Hartford, Conn., to handle distribution of Plaxpak squeezable, unbreakable, polyethylene bottles.

American Can Co. announces the sale of two of its manufacturing plants at Toledo, Ohio, and Atlanta, Ga., respectively, to the **J & L Steel Barrel Co.,** effective Jan. 3. Through the



1 REAL TRANSPARENCY

The sparkling, crystal-clear transparency of Du Pont Cellophane is eye-appealing and *eye-convincing*. It lets the appetite-appeal and other sales points of your product make a direct, visual impression.

2 RIGHT PROTECTION

You can choose from more than 50 types of Du Pont transparent films. They're scientifically tailored to provide many types of protection to fit many specific product needs. And Du Pont offers not only Cellophane but also Cellulose Acetate and Polythene films.

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Du Pont Cellophane gives you the transparency that makes sales . . . the protection that delivers satisfying quality . . . plus efficient operation on high-speed packaging machinery. That's why it's the truly economical packaging material!

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1,000,000,000,000 CELLOPHANE BAGS ARE A LOT OF BAGS!

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● There are a lot of advantages in using Munson Cellophane Bags and Transparent Containers. An important one is the high standard of quality of Munson Cellophane Bags. This—plus fine printing on cellophane—results in better salability of products. Satisfied customers buy products that go to market in Munson Bags.

● You will find Munson a ready adjunct to your manufacturing operations. Personal interest in your packaging problems + prompt and efficient delivery + Munson's reputation for Quality Cellophane Bags is worth your inquiry.

Samples on request. *Call or write.*

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- *Super Seal Cellophane Bags*

mcb

Plants and People

transaction, the purchasing company, wholly owned subsidiary of **Jones & Laughlin Steel Corp.** of Pittsburgh, will assume the can firm's galvanized ware and heavy steel container business.

Coast Paper Limited, Vancouver, B. C., announces the formation of **Package Productions Limited.** This new company will operate as a separate entity, but will have the same ownership, direction, management and location as Coast Paper Limited.

The Chase Bag Co., Chicago, Ill., has recently completed the construction of a warehouse and office at Orlando, Fla.

Funds have been established by **Seymour Oppenheimer,** president of the **Transparent Package Co.,** Chicago, to provide financial assistance for outstanding chemistry-major students attending the **Illinois Institute of Technology.**

Miss Margaret Gibbons has been named purchasing agent for the **Arabol Mfg. Co.,** adhesives manufacturers, New York.

Federal Adhesives Corp., Brooklyn, N. Y., has announced the acquisition of new premises, representing over 50,000 sq. ft., in the Williamsburg section of Brooklyn, to be ready for occupancy about March 1, 1950.

William H. Sardo, Jr., former secretary of the National Wooden Box Assn., has been appointed director of sales of the **Wood Preservation Division, Nuodex Products Co., Inc.,** Elizabeth, N. J., manufacturers of specialty chemicals for industry.

Frank R. Plum has been named director of sales of **American Machine & Foundry Co.'s Bakery Division.**

Roy E. Moneghan has been appointed sales and office manager of the **Ottawa River Paper Co.'s** Flint, Mich., plant.

Miller Sales Co. of Cincinnati has been appointed representative in Chicago and surrounding territory for **Arthur Colton Co.** of Detroit, makers of pharmaceutical and packaging machinery. The Miller company continues to represent Colton in Cincinnati and a large area of the middle west. The new Chicago office is at 201 N. Wells St.

The Butler Paper Corp., Chicago, has opened a new branch warehouse operation at 1021 Front St., Sacramento, Calif., under the name of the **Pacific Coast Co. of Sacramento. William B. Scott** is manager of the new enterprise.

William W. Fitzhugh, Inc., manufacturers of labels and paperboard packages, have removed their set-up box and paper specialty division to enlarged quarters at 47th St. and 2nd Ave., Brooklyn, N. Y. This division, under the direction of **James L. Wilson** at 424 Madison Ave., New York, will continue to operate as an integral part of the company.

Henry H. Wilson has been appointed manager of the Canajoharie, N. Y., plant of **Arkell & Smiths,** multiwall bag manufacturers. Mr. Wilson was formerly with the Universal Match Co. Also announced by the company is the appointment of **William F. Nesbit** to the sales staff of the Texas sales division. Mr. Nesbit will operate out of the company's Houston office.

Arkell & Smiths recently celebrated their 90th anniversary by staging an "open house" in their two Canajoharie plants.

William H. Lownsbery, sales executive of **Phoenix Metal Cap Co.,** died in Chicago on Dec. 2 after a short illness. Mr. Lownsbery had been associated with Phoenix for the past 25 years.

William R. Kreeger, secretary of the **National Paper Box Mfrs. Assn.,** died Dec. 11 of coronary adhesions at the age of 72. He was long associated with the paper box industry.

•MANUFACTURERS' LITERATURE•

To obtain any of the booklets or catalogs listed below, simply circle the corresponding number on the post card, fill in the information requested, and mail.

FILLING MACHINE. The features of the Packer "Junior" vacuum liquid filling machine are given in this bulletin. Illustration is included. Packer Machinery Corp. (1-701)

AIR PUMPS. Specifications, operating instructions, sizes and dimensions, application, and design of the Kraissl Class 23 Series of air pumps. Illustrations and diagrams are included. The Kraissl Co., Inc. (1-702)

AUTOMATIC MARKING. The Rolacoder, used for imprinting code dates, contents descriptions, lot numbers in conveying, or for packaging operations, without manual attention, is illustrated and described. Prices and specifications are given. Adolph Gottscho, Inc. (1-703)

ANILINE PRINTING INKS. Color guide to aniline printing inks for cellophane containing 20 pages. Shows different two-color combinations of BBD Excellopake inks, which are said to afford opaque, uniform coverage on all types of cellophane and other plastic films. Bensing Bros. and Deeney. (1-704)

PREPACKING FOR POTATOES. Various types of bags designed for prepackaging potatoes are illustrated and described with their various features and advantages. 12 pages. Union Bag and Paper Corp. (1-705)

VINYL FOR PACKAGING. Booklet describing the uses of Geon resins, latices, and polyblends in the packaging industry. 8 pages. B. F. Goodrich Chemical Co. (1-706)

TRANSPARENT PLASTIC FOR PACKAGING. Samples of various gauges of Vuepak, a versatile, transparent, structural plastic, from .005 to .020 are given. Information on using the various gauges to their best advantage is given. Monsanto Chemical Company Co. (1-707)

HANDLING ADHESIVES FOR TRANSPARENT FILMS. Emulsion, lacquer, and hot melt adhesives are described in this 18-page booklet. A few problems most commonly encountered when adhering transparent sheetings and their solutions are also given. Chart describing commonly used transparent film is included. National Adhesives. (1-708)

FOLDING CARTONS. Brochure illustrating various folding cartons used by leading manufacturers. Their various advantages are also given. 4 pages. Old Dominion Box Co., Inc. (1-709)

RIGID PLASTICS. Chart showing range of property values for 17 modern rigid plastics with a comparative rating for each property of each plastic material. Koppers Co. (1-710)

PORTABLE BENCH CAPPER. Illustration, specifications, and features are given of the Elgin portable bench capper used for the tightening of small screw or lug caps on small sized containers to any desired tension. Elgin Mfg. Co. (1-711)

LABELER. Leaflet describing with specifications the Thermo-print labeler which imprints and applies labels from roll stock to packages and to practically any type of material, including wood, metal, cloth, etc. Package Machinery Co. (1-712)

SHELLENE BAGS FOR POULTRY. Descriptive folder and price list for Fre-Z-sac Shellene bags, especially adaptable for poultry before freezing. Shellmar Products Corp. (1-713)

WRAPPING MACHINE. The Wrap-O-Matic Model RA, used for wrapping confectionery products is discussed. Mechanical and operational data, illustrated sizes and shapes of products wrapped, and a list of present users are included. Lynch Corp. (1-714)

TUBE ADHESIVES. The advantages of Paisley tube adhesives, machining qualities, description and properties of Paisley regular tube glues, and a partial list of uses for Paisley tube adhesives are given. Illustrated. Paisley Products Inc. (1-715)

SCALES FOR THE COFFEE INDUSTRY. Specifications, diagrams, illustrations, and the features of Hoepner scales for the coffee industry are given. 4 pages. Consolidated Packaging Machinery Corp. (1-716)

SEALING OF KODAPAK. A new practical method of sealing cellulose acetate electronically in the manufacture of transparent packages developed by the Kodapak Demonstration Laboratory is discussed with illustrations. 4 pages. Eastman Kodak Co. (1-717)

LABEL PRODUCER. The Model BP-126 label producer, a heavy duty equipment for producing complete paper or fabric labels up to $6^1/_2$" in length with a maximum printing area of $5^7/_8$" x 3", is illustrated and described with specifications. Markem Machine Co. (1-718)

PLIOFILM. Given are prices for rolls and sheets and data on Pliofilm intended for fabrication purposes in which wearability is an important factor. 3 sheets. The Goodyear Tire and Rubber Co., Inc. (1-719)

FILM AND FOIL APPLICATIONS. Brief, informal booklet, setting forth pertinent facts on Dobeckmun's history, principal products and markets served. Excellent introduction to modern converted film and foil applications. 16 pages. The Dobeckmun Co. (1-720)

VIAL WASHER. Photograph and descriptive leaflet, giving use, output, specific details about the PerfeKtum Ampwash, Rotary Type RW-1 used for washing ampuls, vials and similar containers with efficiency. 3 sheets. PerfeKtum Products Co. (1-721)

FILLERS. Various fillers as produced by Pneumatic are illustrated and described with specifications, features, and discussions of their various uses. 12 pages. Pneumatic Scale Corp., Ltd. (1-722)

PRESSURE-SENSITIVE TAPE. A combination letter-folder discussing the manner by which one company sped up packaging operations with "Scotch" pressure-sensitive tape. Illustrated. Minnesota Mining & Mfg. Co. (1-723)

FOLDING SHEET PLASTICS. The uses, operational data, specifications, prices, and other information pertaining to the Taber Thermofold used for folding sheet plastics are given. 10 pages. Taber Instrument Corp. (1-724)

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•MANUFACTURERS' LITERATURE•

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BAG MACHINE. The new Matador bag machine Models 26, 31, 40, and 50 suitable for use by firms requiring long runs on one size bag and for those who need to change quickly from size to size without elaborate adjustments, are illustrated and described with specifications. 8 pages. H. H. Heinrich, Inc. (1-725)

DECORATIVE TINS. Illustrations, dimensions, prices, etc. are given in this catalog on decorative tins ideal for packaging fruit cake, candy, nuts, cookies, cheese assortments, etc. 8 pages. Weinman Brothers, Inc. (1-726)

CARTON FORMING AND LINING MACHINE. The Peters Adjustable Junior carton forming and lining machine, which with only one operator produces a package ready to be filled, is illustrated and described. Specifications are given. 4 pages. Peters Machinery Co. (1-727)

PLASTIC BOXES. Catalog sheet giving catalog number, dimensions, compartments, arrangement of compartments, weight, and other important data on special plastic boxes produced by Vichek Tool Co. (1-728)

LOCK-TYPE CARTON MACHINE. Bulletin describing the General Mills Tray-Lock machine, Model B, that sets up lock-type cartons automatically. Specifications, features and carton sizes handled are also given General Mills, Inc. (1-729)

SCALES FOR PRECISION WEIGHING. Various Shadograph scales for precision weighing are discussed with their complete specifications and illustrations. 4 pages. The Exact Weight Scale Co. (1-730)

SLITTER. The Kidder C-W Shear-Cut Slitter is discussed with its features and specifications in this illustrated bulletin. The principle of the automatic hydraulic tension control which is used on this machine is discussed. Kidder Press Co., Inc. (1-731)

SAFETY-CIRCLE MOTORS. The Allis-Chalmers Safety-Circle, which is a frame of heavy cast iron that completely surrounds and protects the working parts of their motors is discussed, with information on the design and construction features and specifications of the motors. 8 pages. Allis-Chalmers Mfg. Co. (1-732)

AUTOMATIC PACKAGING MACHINE. A dimension sketch, data, illustrations, and operational information are given on the Arenco Type VUV automatic packaging machine used for flour, grain, coffee, sugar, salt, etc. 4 pages. Arenco. (1-733)

LABELING EQUIPMENT. Resumé including illustrations and some specifications in 12 pages on the various types of labeling machinery manufactured by New Jersey Machine Corp. (1-734)

OFFSET COLOR GUIDE. Plastic-bound book showing 54 colors of offset inks on coated and uncoated stock, six bond inks, four halftone blacks and process color section. For offset lithographers and other ink users only. 32 pages. International Printing Ink Div. of Interchemical Corp. (1-735)

AMSCO BAG SEALING MACHINES. The Models SS-7 and SS-14½, both foot operated bag sealing machines, are illustrated and discussed with their uses, dimensions, weights, etc. Amsco Packaging Machinery, Inc. (1-736)

CONTAINER PLUGS, SLEEVES, AND CAPS. Illustrations and dimensions of various container plugs, sleeves, and caps that give protection against dust and dirt, and damage in spraying, are given in this 4-page bulletin. Cleveland Container Corp. (1-737)

CORRUGATED SHIPPING BOXES. Information on the packing of various products in corrugated shipping materials is given. Also included is information on stimulating sales in a declining market. 8 pages. The Hinde & Dauch Paper Co. (1-738)

PAPERS FOR THE PACKAGING OF CANDIES. Brochure containing samples of flossine, decopad, padsit, dividers, boats, tray rolls, die cut liners, and wavee parchment, paper products used in the packaging of candies. Descriptions of each product and its uses are given. George H. Sweetnam, Inc. (1-739)

PLAIN AND EMBOSSED FOILS. Sample brochure presenting both plain foils in various colors and embossed foils in silver and gold in various patterns. Hazen Paper Co. (1-740)

MACHINE FOR PRODUCING PLIOFILM BAGS. The Roto Bag machine used for making bags of cellophane, pliofilm and other heat-sealing films, is illustrated and discussed in this bulletin with specifications and details. Prices are included. Roto Bag Machine Corp. (1-741)

SELF STICKING LABELS, SIGNS, AND SPECIALTIES. Booklet showing the many ways in which industry uses Mystik, self sticking labels, signs, and specialties, for point-of-sale advertising, product labeling, and for sales promotion specialties. 14 pages. Chicago Show Printing Co. (1-742)

POLYETHYLENE FILM, TUBING, AND SHEETING. Folder containing charts showing yield of sheeting in square yards, yield of sheeting in lineal yards, yield of tubing in lineal inches, and properties of plastic films. 4 pages. Durethene Corp. (1-743)

BREAD WRAPPER. Features, specifications, floor plan, and illustrations of the Standard bread wrapper in use in various establishments are given. 6 pages. American Machine & Foundry Co. (1-744)

EXPENDABLE PALLET. Specification, illustrations, and other information on expendable pallets are given. Pallet pointers, results of experiments, etc. are also included. 20 pages. Robert Gair Co., Inc. (1-745)

WAXED PAPER. Bulletin giving various hints on the use of waxed paper by the homemaker. A check list of foods of which waxed paper will protect the freshness is also given. 4 pages. Waxed Paper Institute. (1-746)

POSTERS. Reprint of an article on the preparation, production, and posting of many sizes and types of outdoor posters. Illustrated. 8 pages. The Forbes Lithograph Mfg. Co. (1-747)

COLLAPSIBLE TUBES. A two color booklet, containing 16 pages of illustrations and descriptions of various tubes, closures, and applicators. Sun Tube Co. (1-748)

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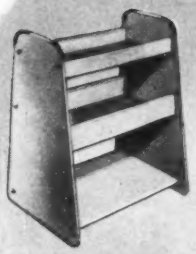
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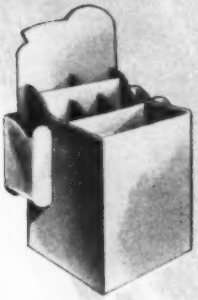
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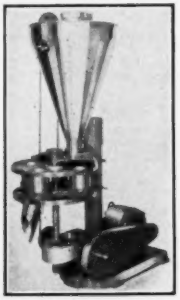
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For Your Information

At the **1950 Frozen Food Industry Convention,** which will be held at the Congress Hotel in Chicago, Jan. 31 through Feb. 3, all important aspects of frozen food production and distribution will be covered. The All-Industry Convention Committee, under the chairmanship of **William M. Walsh,** president of National Wholesale Frozen Food Distributors, Inc., is completing arrangements for panel discussions, annual business meetings of the National Assn. of Frozen Food Packers and the National Wholesale Frozen Food Distributors, Inc., directors' meetings and meetings of committees working on problems in the fields of warehousing and transportation, legislation and research and standards.

The Nox-Rust Chemical Corp. has brought up to date its Rust Preventive Use Chart. Published in easy-to-read tabular form, it gives the correct rust-protection methods for metal parts to be stored either indoors or outdoors, describes the application and removal of rust-preventive materials, designates the most suitable Nox-Rust product to be used and other miscellaneous data. In addition, this chart lists U. S. Government Specifications as required by various branches of the service. Copies will be supplied upon request to the company at 2429 S. Halsted St., Chicago 8, Ill.

A program on industrial design is being offered by the **Milwaukee Art Institute.** Beginning Jan. 1 and continuing to Feb. 19, it includes a series of three conferences on the subjects: Relationship of Business to Industrial Design, The Heritage and Future of Industrial Design, and Education and Industrial Design. **The Society of Industrial Designers** is cooperating in the conference program, with **Philip McConnell,** executive secretary of the society, conducting a seminar on Jan. 28. Members of the seminar panel are **Walter Dorwin Teague, Egmont Arens, Dave Chapman, Raymond Loewy, Harold Van Doren, Russel Wright** and **Henry Dreyfus.** An exhibition of designs by **Brooks Stevens Associates** will be part of the program. Also to be exhibited are packaging displays by several business firms including Miller Brewing, Adelman Laundry, Cudahy, George Zeigler, Knapp-Monarch and others.

Widespread interest is being shown by business and industry in the **First United States International Trade Fair** to be held in Chicago Aug. 7 to 19. The Fair will be housed in four permanent exposition halls: Navy Pier, International Amphitheatre, Coliseum and Arena. American manufacturers are participating and foreign buyers will be on hand. Exhibits have been classified into 29 categories of products and space will be assigned according to classification

An exhibit area of nearly 1,000,000 sq. ft. of gross space is being made available for the Fair. Exhibit space is rented at $3 per sq. ft. for the two-week period. Space allotted to American firms is expected to be taken by Jan. 15 and foreign participants are expected to fill their quota soon afterward. The Fair is operated by a non-profit corporation directed by business leaders, economists and exposition technicians. Headquarters are in Chicago's Merchandise Mart.

An objective yardstick for measuring the merchandising, advertising and physical efficiency of present packages is provided manufacturers by a new and comprehensive Package Rating Chart, just published by **Lippincott & Margulies, Inc.,** industrial designers, 500 Fifth Ave. New York 18. Specifically applicable to packaging for over-the-counter merchandise, it offers a simplified point system for rating the package on 10 counts, ranging from appearance and use features through construction and legal protection. Final score of the package gives the manufacturer an over-all picture of the type of quality job



Think of brilliant, transparent cylinder-shaped packages of tough, long-lived Kodapak Sheet. A partition divides each into two compartments; each compartment has a simple removable top.

What an idea for merchandising products that go together! Double-headers like these can be used to display combinations of candies, nut meats, or snacks, side by side . . . to show and sell from shelf or counter. They also help the customer by making products easy to serve; act as a constant reminder of brand.

Kodapak Sheet comes in two basic forms: Kodapak I Sheet, cellulose acetate, gauges up to 0.060″; Kodapak II Sheet, cellulose acetate butyrate, gauges up to 0.002″. Made on the same type of machines, to the same high standards, as Kodak photographic film base.

For further information about Kodapak Sheet, its fabrication and end uses, write Kodak, consult your nearest representative or distributor, or arrange to visit the Kodapak Demonstration Laboratory in Rochester.

Cellulose Products Division
Eastman Kodak Company, Rochester 4, N. Y.

Sales offices in New York, Chicago. District sales representatives in Cleveland, Philadelphia, Providence. Pacific Coast distributors: Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle. Canadian distributor: Paper Sales, Limited, Toronto, Montreal.

Kodapak Sheet

"Kodapak" is a trade-mark

FOR THE DISPLAY YOU WANT . . . THE PROTECTION YOU NEED

Kodak
TRADE-MARK

ANNOUNCING A NEW **CUT-OFF**



IT'S ACCURATE

Send for full particulars

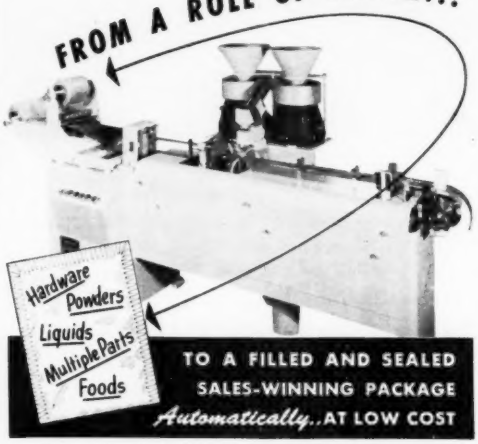
Another modern converting machine is advertised on Page 138

Machinery and Products Engineering Corp.

Paper Conversion Machinery

3630 Frankford Ave. Philadelphia 34, Pennsylvania

FROM A ROLL OF PAPER...



TO A FILLED AND SEALED SALES-WINNING PACKAGE *Automatically*..AT LOW COST

(1) *Makes the package from a roll of paper, film, or foil;* (2) *Fills and counts or measures the contents;* (3) *Finishes up to 36,000 packages per 8 hour shift.* Whether your product is solid, liquid, powder, or multiple items, the Bartelt Packager will place the desired quantity in a container made of any type of heat sealing material from heavy 60 lb. krafts to the thinnest films and foils. Feeds to handle products from hardware to soup mix are available. *Write for details today.*

BARTELT ENGINEERING CO., ROCKFORD, ILL.

For Your Information
Continued

his package is doing at the point of sale. Copies of the chart may be had on request to Lippincott & Margulies.

A joint **Naval-Air Force Packaging and Materials-Handling Seminar** was held at the Brookley Air Force Base in Mobile, Ala., recently to acquaint Reserve officers, who during their wartime tour of duty were in close touch with these problems, with the advancement made in the field since they were on active duty. Some 69 Reserve officers from as far east as Connecticut and as far west as Texas attended.

Maj. R. V. Hemm, USAFR, St. Louis, Mo., and **Lt. T. A. Johnson,** USNR, Washington, D. C., were director and assistant director, respectively, of the seminar. **Brig. Gen. J. F. Early,** chief of the Supply Division, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio, gave the keynote address.

Industrial speakers who addressed seminar members were: **L. A. Danse,** General Motors Corp.; **C. K. Royce,** Navy packaging Board; **A. L. Harris,** Atlanta Paper Co.; **A. V. Grundy,** Quartermaster Food & Container Institute; **V. A. Willimittis,** General Motors Corp., Frigidaire Division; **K. W. Kruger,** Forest Products Laboratory; **Paul Pate,** Delta Airlines; **W. B. McCellend,** Clark Equipment Co., and **E. E. Thompson,** Davison Chemical Corp.

"Glassine and Greaseproof—The Wonder Papers for Protective Packaging" is the title of a new booklet just published by **The Glassine & Greaseproof Mfrs. Assn.,** 122 E. 42nd St., New York 17. What these papers are, how they are made, their protective qualities and the important and vital part they play in our modern-day living, especially in food packaging, are explained in layman's language. A chart listing the principal applications of protective packaging with glassine and greaseproof papers, showing the degree of moisture control, grease resistance and other functions for various products, should prove of interest to all packagers. Copies of this 16-page booklet may be obtained on request to the association.

Two new color guides showing specimens of aniline printing inks for glassine have just been issued by **Bensing Bros. & Deeney,** 401 N. Broad St., Philadelphia 8. One contains 40 glassine pages, both transparent and opague, printed with Excellopake inks in various standard colors, while the other contains 47 pages printed with Translustro inks. Copies of the new color guides may be obtained free of charge by writing to the company's sales department.

What's doing

Jan. 11–13—**Society of Plastic Engineers,** sixth annual national technical conference, Hotel Carter, Cleveland, Ohio.

Jan. 22–31—**National Canners Assn., National Food Brokers Assn.** and **Canning Machinery & Supplies Assn.,** annual conventions, Atlantic City, N. J.

Jan. 26–27—**National Preservers Assn.,** annual meeting, Atlantic City, N. J.

Jan. 27—**National Pickle Packers Assn.,** mid-year meeting, Roosevelt Hotel, New York.

Jan. 28–31—**National-American Wholesale Grocers Assn.,** annual convention, Ambassador, Atlantic City. N. J.

Jan. 30–Feb. 10—**Chicago Gift Show,** Palmer House, Chicago.

Jan. 31–Feb. 4—**National Assn. of Frozen Food Industries,** annual convention, Congress Hotel, Chicago.



Your products sell *faster in Opticlear Vials*

How to make dry products stay DRY

Moisture penetration is virtually impossible through the amazing seal of an Opticlear Vial . . . even after its resilient stopper has been removed and replaced many times.

Leading Manufacturers of pharmaceuticals and other "dry" products . . . in tablet, capsule, and powder form . . . find Opticlear Vials indispensable on three counts:

1. Positive, moisture-proof seal.

2. Positive re-seal even after many stopper withdrawals.

3. Sparkling eye appeal that sells product quality and character.

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company



PICK-ETS

Findley's Improved HOT PICK-UP CEMENT

Pick-ets are tops in easy handling, cleanliness, and uniformity. Cheaper too, because they give you top performance, and because there are no chunks to break up — no fine powder (oxidized pick-up that won't melt under usual temperatures) to cause sludge in your glue pot.

Pick-ets melt faster and more evenly. This means freedom from temperatures that drop below the pick-up point because of big lumps being put in.



Pick-ets are uniform, perfect spheres. They can be scooped with a small can and the exact amount added each time.

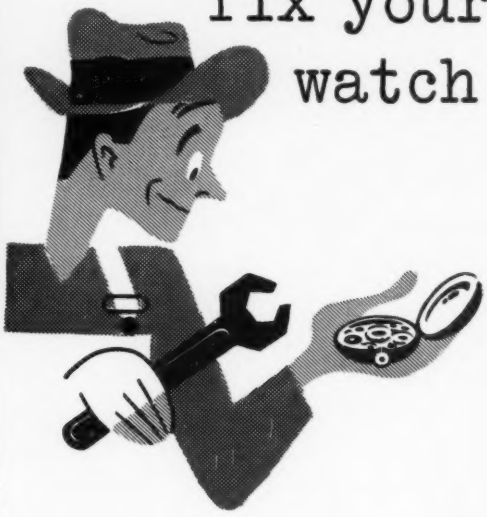
The three grades — green for cold — amber for normal — and red for hot — handle a range of cans from 35-150° F. Write for samples NOW.

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sales offices in CHICAGO, KANSAS CITY, NEW ORLEANS, DALLAS, HOUSTON, MINNEAPOLIS, KALAMAZOO, LOUISVILLE, AND OGDEN, UTAH

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Don't let a plumber fix your watch



Even though a master plumber has a whole case full of tools, he and his oversize wrenches are no match for the delicate and complicated insides of a fine watch.

It would just be a case of the wrong tools and the wrong kind of know-how for the job.

And by the same token, while quite a few package manufacturers can handle routine jobs which call for paper tube packages, it still takes a *specialist* like Niemand Bros. to master the problems presented by the demand for merchandisable tailormade, special tubular packages.

Niemand Bros. specializes in designing and manufacturing unique paper tube packages . . . frequently for products which have never before been merchandised in these low cost containers. Our privately developed equipment enables us to supply you with lined tubes, laminated tubes and tubes with unique closures and with distinctive decorations and coverings.

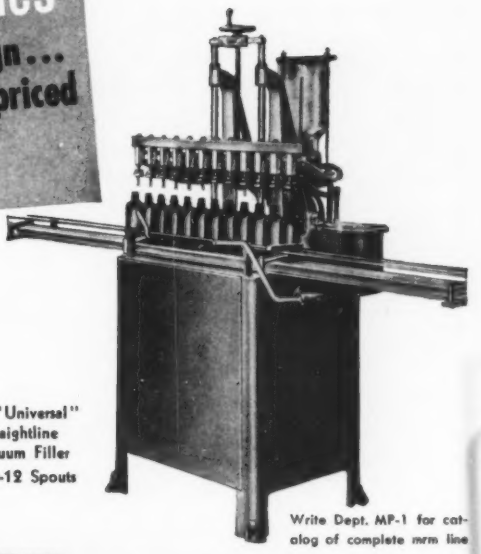
Make no mistake . . . fit the tool to the job . . . fit the toolmaker to the job: Ask Niemand Bros. to discuss specialty paper tube packages to speed your sales and lower your costs. Write for further information.

NIEMAND BROS. INC.
Manufacturers of PAPER TUBE PRODUCTS
37-01 35th Avenue Long Island City 1, N. Y.
RAvenswood 8-0909

mrm filling machines

are simple in design... sturdily constructed..moderately priced

maintenance and changeover time at absolute minimum and no skilled help necessary!



mrm "Universal" Straightline Vacuum Filler 8-10-12 Spouts

Packers with a wide variety of products and containers to fill will find this ALL PURPOSE, Versatile Filler an indispensable asset to their production line. It fills thin to viscous liquids and shampoos. Fully adjustable to containers ranging from fractional ounces to one gallon in glass and up to quarts in metal—all shapes and mouth diameters, including sprinkler tops, open top cans and jars. Simple changeover from one size to another.

- 8–10 or 12 interchangeable nozzles and spouts for containers up to quarts.
- 5 gallon spouts and nozzles for ½ gallon and 1 gallon glass containers.
- Fully equipped with motor and vacuum pump.
- 8 ft. stainless steel mrm "speed" adjusting container track.
- Contact parts—stainless steel (brass plated, hard rubber or other required material).
- Automatic overflow (no waste).
- Production rates from 50 to 75 fractional ounces per min. (based on water), other sizes proportionately.

Write Dept. MP-1 for catalog of complete mrm line

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Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment.



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wrapped on the Hayssen

No soil from handling; no dirt to mar the clean attractiveness of the towels, after they leave the factory . . . because they are wrapped and sealed on the Hayssen Wrapping Machine. You can be certain that YOUR product, too, will look its level best if you wrap on a Hayssen. Hayssen Wrapping Machines fit into any production line; are fully automatic; have thermostatically controlled heat-sealing plates; photo-electric cell for registering printed overwraps; and operate at a low wrapping cost per unit. Your product deserves good wrapping service . . . wrap on a Hayssen. Full information upon request.

HAYSSEN MFG. COMPANY SHEBOYGAN, WIS.

WILL YOUR PRODUCTS PROFIT BY WRAPPING?

Good packaging increases sales. Because Hayssen machines are available in many size ranges, capacities and speeds, let the Hayssen engineers work with you to provide the proper wrapping for better packaging. Your problems will receive their personal attention. Write today.



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Hayssen ELECTRIC EYE WRAPPING MACHINES

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Do you pay attention to your packaging?—Your Customers do! The difference between a sale and none is often due to the container a product is packed in.

Transparent plastic "pail" counter dispenser. A "penny catcher" that introduces new merchandise.

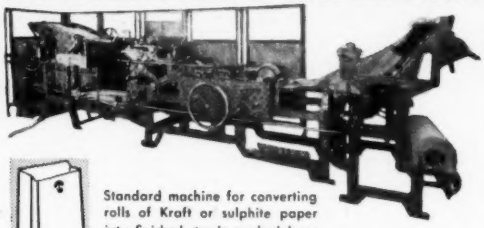
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Plan to use one of these Eye-Appealing containers or counter displays. Write for samples, catalogue and packaging suggestions today.



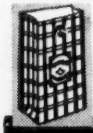
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POTDEVIN

U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Packing Case and Method of Making Same, G. H. Norquist, Jamestown, N. Y. U. S. 2,485,644, Oct. 25. An improved packing case having an interior sheet metal liner and an outer body structure assembled from flanged panels, each panel being formed from a plywood sheet.

Insulated Container Structure, G. H. Norquist, Jamestown, N. Y. U. S. 2,485,646 and 2,485,647, Oct. 25. An insulated container structure comprising an inner containing shell having structural strength adapted to resist and absorb substantially all the stresses and strains imposed upon the container, said inner shell being enclosed within an insulating casing of high insulating value.

Dispensing Container, R. C. Dalsemer (to Siftproof Carton Associates, New York, N. Y.). U. S. 2,485,816, Oct. 25. A paperboard container including an open-topped tray-like box provided with an end opening and adapted to hold a powder, a second open-topped tray forming a cover for tray-like box, a paperboard mount adapted to fit over and partially close end opening, a delivery outlet member carried by said mount and cover to enclose covered tray.

Container For Electrical Apparatus, S. Nadelson, New York, N. Y. U. S. 2,485,837, Oct. 25. A casing for a lamp or other electrical device, said casing being open at the front end, closed at its rear end and having a combined cover and supporting base for the casing.

Roll Wrapping Machine, E. M. Costello, Portland, Ore. U. S. 2,485,865, Oct. 25. In a roll wrapping machine for individually wrapping rolls of merchandise, a table and means for revolving rolls over table in spaced series, and rolling means for stretching individual glue-bearing wrappers in the path of rolls, said means including a stock of wrapping material.

Collapsible Tube, P. R. Hoopes (to Colgate-Palmolive-Peet Co., Jersey City, N. J.). U. S. 2,485,885, Oct. 25. A die having walls forming two spaced axial annular cavities and a connecting cavity of substantially semi-circular cross section and means for forcing end of tube into outer part of annular cavities; patent also including a collapsible tube comprising an organic plastic barrel, an end barrel being curled inwardly and backwardly to form a cylindrical surface bonded to cylindrical surface of said curled-back portion.

Packaging Machine, M. P. Neal (to A B C Packaging Machine Corp., a corporation of Illinois). U. S. 2,485,912, Oct. 25. A packaging machine comprising a base plate for supporting a container with at least one of inner bottom flaps folded into substantially the plane of the bottom of the container and means for moving container into gluing position.

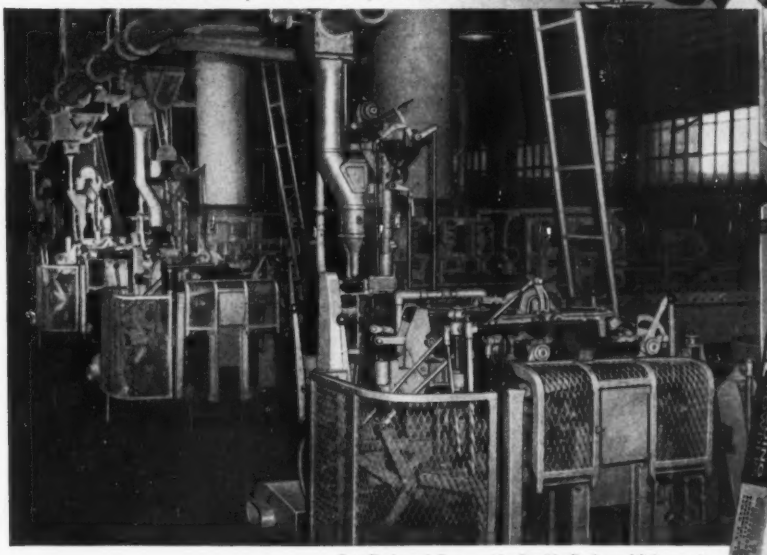
Collapsible Packaging Container, J. C. Madden, 3rd (to Consolidated Lithographing Corp., Brooklyn, N. Y.). U. S. 2,486,045, Oct. 25. A container comprising a receptacle body with bottom and a peripheral side upstanding from bottom, opposed extensions projecting upwardly in converging relation from the top of peripheral side, and a separate and downwardly flaring cover engaging top of peripheral side.

Box Folding Machine, F. A. Spinale, Medford, Mass. U. S. 2,486,074, Oct. 25. A machine for folding to open position

DID PNEUMATIC HAVE A HAND IN YOUR DESSERT LAST NIGHT?



KRE-MEL, TUMBO, CLINTON, AMAZO, KROGER, DAINTY JELL, MY-T-FINE, MINUTE TAPIOCA



Installation of Pneumatic's Double Package Maker equipment in production of KRE-MEL Dessert at plant of Corn Products Refining Company, Argo, Ill.

PROBABLY YES—

because America's leading makers of packaged desserts use Pneumatic Packaging Machines!

And there's good reason why so many famous manufacturers rely on Pneumatic Packaging Machines. They've found that the sturdier construction, the precision engineering of Pneumatic Machines assure them of speedier, lower-cost package output!

Pneumatic's Double Package Maker, for instance, forms a protective lining and then shapes a carton around it. The snug-fitting inner bag allows maximum fill, offers far greater product protection.

That's just one example of Pneumatic's packaging efficiency and convenience. In a half-century of highly specialized operations, Pneumatic research has developed more than ninety different machines to handle your packaging and bottling needs, speedily, competently . . . to give you Pneumatic's famous "lower cost per container" performance!

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Unit Service Packets come in several styles for different types of products. There's a style suited perfectly for tea . . . a shaker packet for salt or pepper . . . another variation that's ideal for medical powders.

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UNIT PACKET COMPANY

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U.S. Patents Digest

Continued

flattened boxes comprising an endless conveyor having a series of transverse, box-receiving carriers connected thereto in spaced parallel relation, arms hinged to ends for upfolding ends of flat box and flappers hinged to outer ends for infolding flap on box ends.

Hot Food Carton, B. O. Kuehlhorn, Chicago, Ill. U. S. 2,486,178, Oct. 25. In a container, the combination of a body having four connected side walls and one end wall, opposite end being open, a cover for open end equipped with flanges which seat upon flaps of side walls and an outer liner of equal thickness to flaps; outer liner of equal thickness is also held in place and same is equipped with a handle secured to inner liner and extending through slots in the outer lines and body member, respectively.

Machine For Forming and Applying Hood Caps to Bottles, A. J. Briggs, Syracuse, N. Y. (one-half to W. L. Hinds, Fayetteville, N. Y.). U. S. 2,486,252, Oct. 25. A machine for applying hood caps to bottles comprising a tubular magazine arranged to support a plurality of thin, flexible disks in stack formation, a cap-transfer member, a cap-forming member, means for transferring from stack formation to cap-forming member and then mechanism to move cap to place same on bottle.

Ampoule, J. O'Sullivan, Port Richmond, N. Y. U. S. 2,486,321, Oct. 25. An easy-to-open glass ampoule having a definite but substantially unweakened line of cleavage and comprising a constricted portion of the ampoule molded in the file-catching cross serrations so surface skin of glass remains unbroken.

Bottle Cap or Closure, E. Simmons (to The Pyramid Rubber Co., Ravenna, Ohio). U. S. 2,486,364, Oct. 25. In combination, a bottle having a mouth formed with an external head at the open extremity and a soft rubber cap for closing bottle, said cap comprising a body including a valve structure and a base structure connecting to the body.

Device For Dispensing and Applying Pressure-Sensitive Adhesive Tape, G. H. Fritzinger, West Orange, N. J. (one-half to H. G. Kendall, Brooklyn, N. Y.). U. S. 2,486,470, Nov. 1. A manual device for applying pressure-sensitive tape to objects, including a housing for a tape-supply roll, an exterior applying means for pressing tape into contact with objects and having an opening in housing adjacent to applying means.

Filling Machine, J. Bousquet (to Beech-Nut Packing Co., Canajoharie, N. Y.). U. S. 2,486,461, Nov. 1. In a box-filling machine, a plurality of trays arranged side by side and adapted to be fed sidewise in one direction intermittently and devices for feeding articles into a plurality of trays through one of the ends thereof during the periods of rest of the trays.

Collapsible Permanent Shipping Container, R. B. Kubach, Lincoln Park, Mich. U. S. 2,486,532, Nov. 1. A shipping case having a bottom wall, a plurality of side walls and a cover, some walls being provided with inner walls or plates arranged in spaced relation with the companion outer wall and provided with areas having a large number of closely adjoining perforations in combination with a plurality of rods substantially the length from one inside wall to the opposite inside walls, rods having pins and said pins fitting into perforations for purpose of holding an article carried in a definite position.

Crate, P. D. Friday and T. H. Miller, Portland, Ore. U. S. 2,486,709, Nov. 1. A crate consisting of six rectangular frame members, each consisting of four pieces of wood joined to form a rectangle, the cross section of each piece being in the



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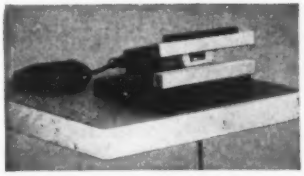
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- For Extensive Sealing Operations
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How should artwork be prepared for rubber plate printing?

What does the "pitch line" have to do with aniline printing quality?



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A MACHINE THAT ATTACHES LABELS and HEAT SEALS *IN ONE OPERATION*

Label Seal-It is the first machine ever devised to eliminate the slow and costly hand operation of folding labels and placing over tops of bags before sealing.

It can be adjusted to secure a half-fold on a small tent-style label and, if desired, will also fold over top of bag before label is attached — all in one operation. Amazing production savings are now possible with this heavy-duty heat sealer with automatic phantom feed that speeds production. Label Seal-It can also be used interchangeably for ordinary heat sealing of bags without labels.

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U.S. Patents Digest
(Continued)

form of an isosceles right-angle triangle with all the hypotenuse sides of all of the pieces of each individual frame being in the same plane and defining the outer faces of the crate.

Shipping Container, A. Harris (to Ronson Art Metal Works, Inc., Newark, N. J.). U. S. 2,486,711, Nov. 1. A shipping container for lighters and the like including a metallic casing having unitary side walls constructed loosely to surround the article to be stored.

Tape Holder, F. M. Kelley, Jacksonville, Fla. U. S. 2,486,713, Nov. 1. A tape holder for non-sticky tape rolls comprising a U-shaped member of comparatively thick stock and embodying correspondingly shaped laterally directed end portions adapted to fit in contact with opposite sides of the tape roll.

Wrapping Machine, K. A. Sumida (to Miller Wrapping & Sealing Machine Co., Chicago, Ill.). U. S. 2,486,892, Nov. 1. In a wrapping machine, a conveyor for transmitting packages, enclosed on three sides by a sheet of wrapping material having end portions extending rearwardly of the package, machine having gripping and folding means.

Shipping Container, V. B. McGrew, Chicago, Ill. U. S. 2,486,957, Nov. 1. A container having an open end (in which perishable products are adapted to be shipped), an internal annular supporting flange located below the top edge thereof, a heat-exchanging unit and a cover for the container mounted within the open end.

Container For Materials in Stick Form, W. E. Mesh, Teaneck, N. J., and B. Carlin, New York, N. Y. U. S. 2,486,960, Nov. 1. An article holder comprising a casing having an open and a closed end, a cover for said casing and an article-holding cup within said casing and longitudinally slidable therein.

Multicompartment Container, J. R. Belsinger (to Belsinger, Inc., Atlanta, Ga.). U. S. 2,487,293, Nov. 8. A container having two outer members and two inner members, each of said members having side walls and a secured closing end, the outer members having identical cross sections so that their free edges can be brought into abutment and their inner members having a telescoping fit within the outer members.

Portable Tape Sealer, W. C. Marsh (to Marsh Stencil Machine Co., Belleville, Ill.). U. S. 2,489,351, Nov. 8. A light-weight, portable, sealing-tape dispenser, including a support, formed of light-weight material, a tape-supply holding means on support for holding supply of tape to be dispensed, gripping means on support and non-leakable moistening means on support over which tape is drawn.

Method of Forming Valve Bags, W. E. Sharkey (to The Raymond Bag Co., Middletown, Ohio). U. S. 2,488,038, Nov. 15. The method of inserting a valve sleeve in a valved bag which comprises continuously advancing a web of bag material having predetermined transverse lines of severance and having adjacent each line of severance a portion from which a valve is to be formed.

Die-Cut Insert For Gun Packing Cases, K. S. Dawson (to Waterbury Corrugated Container Co., Waterbury, Conn.). U. S. 2,487,528, Nov. 8. In a packing case, a box and a cushion member therein having complementary upper and lower blocks disposed entirely between the walls of box, blocks being formed of sheet material progressively folded to provide four sides in each block including complementary facing flat sides in face-to-face contact, facing sides being recessed to form cavity conforming to shape of article to be packed in case.

Dispensing Package Holder, E. G. Ganter (to International Cellucotton Products Co., Chicago, Ill.). U. S. 2,487,537, Nov.

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Millions of the war-stricken destitute in foreign lands have reason to bless nonprofit CARE for supplementing their almost nonexistent calories. Acting in behalf of warm-hearted Americans who foot the bill, CARE has placed more than 8,000,000 packages in deserving hands during the past three years.

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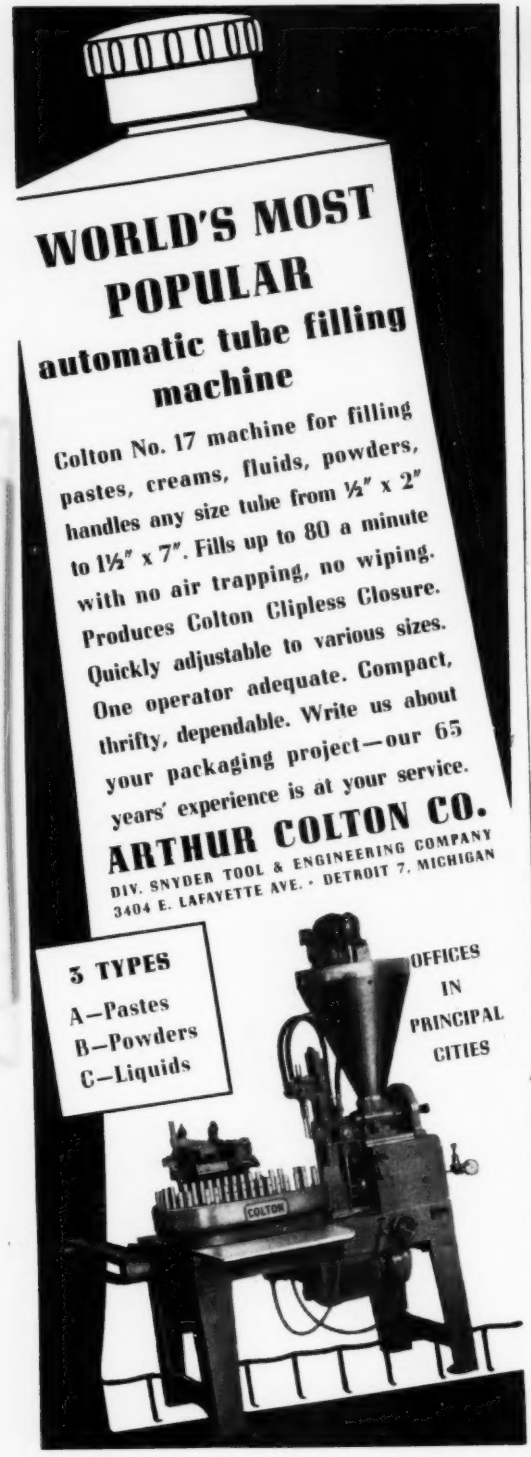




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8. A dispenser comprising a holder for a package having an article-dispensing opening, means for mounting holder on wall in such a manner as to position the dispensing opening of the package closely adjacent such wall thereby to prevent access to opening.

Paper Bag Construction, B. Frischer, Bronx, N. Y. U. S. 2,487,643, Nov. 8. A paper bag, in combination with a first sheet-like addition and a second sheet-like addition, first addition secured to the inner side of one of the two walls of the bag and second addition secured to the inner side of the other of said walls of the bag, additions made of stronger material than sheet material of which bag is made.

Tape Applying, S. B. Lindsey (to Minnesota Mining & Mfg. Co., St. Paul, Minn.). U. S. 2,487,816, Nov. 15. A method for withdrawing pressure-sensitive tape from a supply roll thereof and applying it around the sides of an object, comprising withdrawing a length of tape from the roll and holding it in an outwardly extended position by temporarily anchoring the leading end at a point removed from the roll, moving the object into contact with the adhesive side of the extended length between the point of anchorage and the roll.

Bottle Carrier, G. F. Stone (to The Canister Co., Inc., Phillipsburg, N. J.). U. S. 2,487,491, Nov. 8. A bottle carrier comprising a body of generally rectangular shape closed about the bottom and sides and open at the top, body having its sides and ends formed from a strip of fibrous material, bottom of body being formed of sheet metal provided with perforations located at points corresponding to the approximate center of bottles placed in the carrier and provided with reinforcing material and a handle.

Container, M. T. Hunsworth (to Container Corp. of America, Chicago, Ill.). U. S. 2,488,194, Nov. 15. A paperboard container comprising two pairs of opposed side walls, the walls of one pair being separately formed and secured extending between the other walls, a pair of substantially rectangular inner cover flaps each integral with and hinging on one of said separate walls and extending from wall to wall of the other pair of walls, said free edges abutting in closed position of inner flaps, all equipped with cover flaps which overlie the inner cover flaps in closed position.

Slip-Loop String Tag, C. A. Flood (to Dennison Mfg. Co., Framingham, Mass.). U. S. 2,488,280, Nov. 15. A tag having an opening therein, a string loop extending through the opening, a knot for dividing the loop into a tag sub-loop extending through the opening and a free sub-loop adapted to lasso a button or the like, the knot being fast to one side of the string loop, the other side of the string loop extending through the knot and slidable therein for varying the relative sizes of the sub-loops.

Tape Pre-Feeder, A. F. Shields (to S & S Corrugated Paper Machinery Co., Inc., Brooklyn, N. Y.). U. S. 2,488,339, Nov. 15. A web feeder comprising means for mounting a supply roll, means for drawing web from the supply roll and means for feeding the web to maintain a slack loop between the supply roll and the means for drawing the web therefrom.

Packing Case, F. J. Bickham (to Western Electric Co., Inc., New York, N. Y.). U. S. 2,488,368, Nov. 15. A packing case for delicate apparatus comprising a box structure, end frames positioned in box structure, layers of cushioning material interposed between the end frames and adjacent portion of the box structure, a plurality of resilient rods supported at their ends by end frames and extending parallel one to another longitudinally of the box structure and having a plate to each rod, plates being adjacent their mid-portion only.

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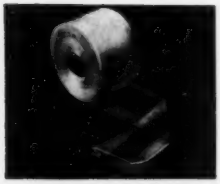
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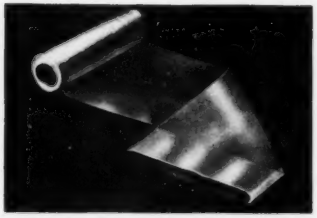
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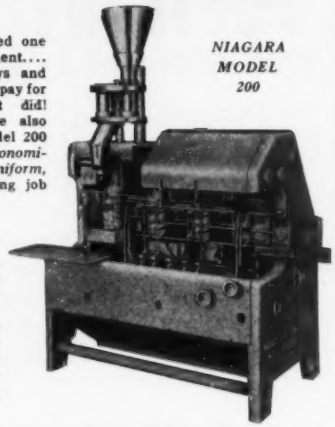
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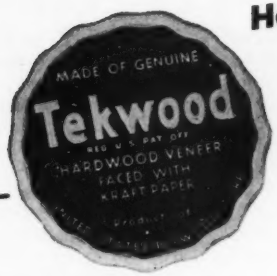
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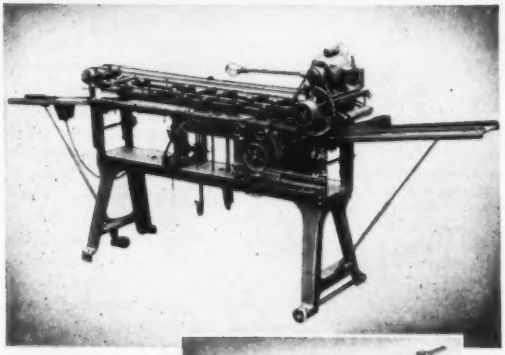
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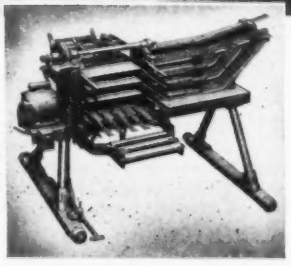
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The year ahead

(*Continued from page 77*) in prices. Better methods, improved practices in design and increased efficiency are all expected to play important parts in maintaining the price level now in force, in spite of increased costs of labor and material.

The machinery maker follows hard on the heels of the package user in developing new machinery. For instance, there seems to be a definite trend toward a considerable increase in wrapping of products, and machines are at the launching point to satisfy these requirements. The fact is that there are still vast fields in which packaging is to make itself felt, where wrapping methods and equipment fill the bill more completely than do some of the more entrenched package forms. Viewed in perspective, these new types of packaging will not displace or supersede the familiar carton, bottle, jar or can; these will have just as important a place as formerly, but the public will be offered many products in packaged form, such as meat, fresh fruits and vegetables, hitherto in bulk.

The manufacture of equipment for the packaging production line is a highly specialized field in which very frequently the custom-built machine made for a particular user today may tomorrow become the stock model in use all over the field. As was predicted in these columns a year ago, competitive selling has reappeared to put equipment manufacturers on their mettle. The prospective buyer of equipment is sure to be listened to.

Neither the statistical picture nor the forecasts of observers in the packaging field can give any adequate conception of the progress made by packaging in the year just passed. Some of the forward steps are the result of adaptation to changes in the marketing practices and consumer buying habits, such as the tremendous growth in prepackaging of meats, fresh fruits and vegetables. In the same category is the rapid extension of self service to outlets such as drug stores, hardware stores, etc. Other progressive steps are traceable to improvements in packaging structure and material, such as the "squeeze" bottle, the propulsion can and the new types of margarine pack. With all, there has been a return of insistence on quality which may be expected to continue. At the same time, there has been a careful scrutiny of costs and this, too, will

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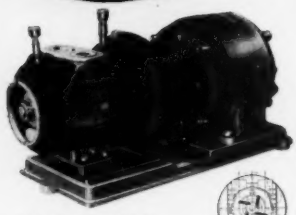
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remain. Looking ahead, in the words of the Department of Commerce, "growth prospects in the container and packaging field appear to be extremely favorable. The reward for imagination and initiative, as applied to sales-producing packages, will never be greater."

Fruit film—

(*Continued from page 127*) our samples were divided into dark and light red fruits and packaged as shown in Table III. These data show that, regardless of the kind of packaging, decay was the limiting factor in handling stemless cherries of dark red color. The appearance of neither the light nor the dark-colored stemless fruit was comparable to similar lots with stems. Shriveling of the shoulder area adjacent to the stem scar was quite pronounced. It is a question whether the fresh fruit trade would accept stemless sweet cherries even if the decay problem could be successfully solved.

Summary of cherry packaging

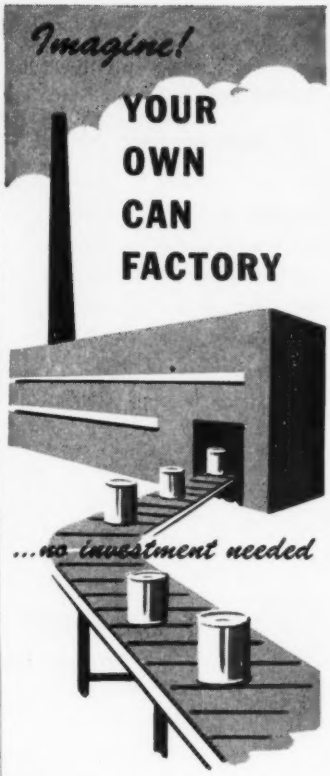
The transparent films of low moisture permeability tested in these studies are acceptable for consumer packages in that they afford a view of the contents and prevent rapid moisture loss. However, the data in this report show that none of the films studied met all of the requirements of an ideal packaging material for sweet cherries. Fogging, poor shear strength, too rapid or too slow a gas-diffusion rate and in some instances poor visibility precluded the commercial use of these films as sealed containers. None of the materials combined a sufficient degree of transparency, strength and gas permeability at both temperatures of 36 deg. F. and 75 deg. F. to control decay, preserve the natural brightness of the fruit and enhance its dessert quality. The Pliofilm, cellophane and Reynolon (polyethylene) films require perforation to be safely used for packaging cherries. Decay was the limiting factor in the handling and packaging of stemless sweet cherries.

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(1) Gerhardt, Fisk, and Wright, T. R., "Films for Cherries" MODERN PACKAGING *21*: 163-165, 214, 216, 218 (June, 1948).

(2) Gerhardt, Fisk, and Ryall, A. Lloyd, "The Storage of Sweet Cherries as Influenced by Carbon Dioxide and Volatile Fungicides," U. S. Dept. Agr. Tech Bull. 631, 20 pp., 1939.

(3) Platenius, Hans, "Films for Produce: Their Physical Characteristics and Requirements" MODERN PACKAGING *20*: 139-143, 170 (Oct. 1946).



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Polyethylene-polyisobutylene blends

(*Continued from page 124*) in position over the straight polyethylene is quite marked. Similarly, it is conceivable that the results would be quite encouraging if consideration were given to other economic studies involving specific packaging problems, such as sulphur-dioxide permeability. Economically, the blending of these two polymers appears feasible.

TABLE VII—WATER-VAPOR PERMEABILITY (GMS./24 HRS./100 SQ. IN.)

Packaging materials	*100 F. 90% R.H.*	*Cost per unit area cellophane = 100*
Pliofilm (Grade FF)	2–5	174
Waxed sulfite	0.5–1.5	44
Polyethylene	0.9–1.2	122
Lacquered glassine	0.5	104
Wax-laminated glassine	0.5	139
MSAT cellophane	0.3–0.8	100
Waxed glassine	0.2	70
Saran	0.2	291
Polyethylene-polyisobutylene B-120 (50–50)	0.2–0.3	122
Metal-foil laminate	0.0–0.3	300

Conclusions

Based on a broad consideration of the data previously discussed, it appears that blends of polyethylene and polyisobutylene may economically provide the first-named polymer with an added versatility which will enable it to be used in packaging fields where it is now inapplicable or, at best, marginal. Most interesting is the fact that the data demonstrate that the properties of the polymers studied are quite complimentary to each other. Recognition of this fact may possibly open up some new and perhaps unique packaging fields. It is hoped that this rather preliminary investigation will stimulate much added research along the lines indicated and that the results reported here will prove to be of value in many packaging fields.

Acknowledgment

The author acknowledges the cooperation received from D. W. Young, H. C. Evans and W. J. Sparks.

References

(1) Sparks, W. J., U. S. Patent 2,339,958, Jan. 25, 1944.
(2) Latham, G. H., U. S. Patent 2,369,471, Feb. 13, 1945.
(3) Elder, L. W., "Fundamentals of Package Function," MODERN PACKAGING *138*, 138–142, 196, 198, (Oct., 1949).

Whitman's Sampler

(*Continued from page 95*) cations in Michigan by the same family for 70 years; the Jordan almonds—a favorite in the Sampler assortment—come from southern Spain.

The packaging lines

Rigid quality control can be seen in the operation of the packaging lines, too. Located on the third floor of the new air-conditioned addition, the finished package department consists of five straight belt lines with intricate three-plane conveyor belts and two tray-and-belt lines. Three of the straight lines are organized for packaging the Sampler—two of them are for the 1-lb. box and the third line is for packaging the 2-lb. box.

At the heads of the lines—each staffed by 100 girls—the Sampler boxes are loaded onto the conveyors. The outer box moves on the top conveyor to the end of the line for final assembly; the inner tray with its compartments goes along the center packing belt, where the girls "cup" each piece of candy individually in a paper cup and place the piece in its predetermined position as the inner tray goes past them on the moving belt.

When the inner, compartmented tray nears the end of the line, the candies are given a preliminary brushing to add sheen to the chocolate-enrobed pieces and to settle the pieces evenly in the trays. The tray is then inspected and any imperfect pieces are immediately replaced with perfect ones.

After a final brushing the filled inner tray is inspected again before it is placed in the outer box, which has the protective glassine liner already in position.

The top paper insert is placed over the candy, the printed guarantee folder added and the wings of the liner folded over before the box lid is closed. The decorative ribbon is tied by hand just before the box is fed into the cellophane-overwrapping machine.

If the Whitman box is decorated with special ribbons for any one of the holidays, this bow is added after the box is overwrapped. The final packaging step is the addition of the small, embossed, foil-laminate, price-and-ingredient label to the forward left-hand corner of the wrapped package.

Presidential inspection

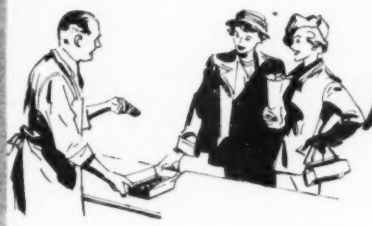
A little ritual takes place in President McIlhenney's office every two hours, day in and day out, while the Whitman packaging lines are in operation.

An attendant brings to the president a sample filled box, picked at random from each of the lines. Whatever important conferences may be under way are put aside for the moment while Mr. McIlhenney personally inspects each box to see that each piece of candy is perfect and precisely placed as it should be in the package.

If his critical, trained eyes spot the smallest imperfection the package is waved away with a terse order to correct the defect. Woe unto the production man if the condition hasn't been remedied by the time the next inspection comes!

No good package can succeed without consistent safeguarding of product quality, and nowhere is this rule more zealously upheld than at the Whitman plant.

CREDITS (for Sampler package): *Lithographed cover paper, Brett Lithographing Co., Long Island City, N. Y. Boxes, G. A. Bisler, Inc., and George H. Snyder, Inc., Philadelphia; Lebanon Paper Box Co., Lebanon, Pa., and L. Gordon & Son, Inc., Baltimore, Md., Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., and Sylvania Div., American Viscose Corp., New York. Paper liners and inserts, Milprint, Inc., Milwaukee, Wis. Ribbons, Pennsylvania Ribbon Co., Philadelphia. Embossed ingredient-and-price labels, The Foxon Co., Providence, R. I. Bonbon cups, Oldmill Paper Products Co., Long Island City, N. Y. Cellophane-overwrapping machines, Package Machinery Co., East Longmeadow, Mass. Labeling machine, New Jersey Machine Corp., Hoboken, N. J.*



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Food industry meetings at Atlantic City

Frequently referred to as the "greatest food congress on earth," the combined period of annual conventions of the National Canners Assn., National Food Brokers Assn. and the Canning Machinery and Supplies Assn., is expected to bring to Atlantic City, Jan. 22–31, a total attendance of approximately 18,000 people —said to be the largest business assembly in the nation.

More than 40 Atlantic City hotels and most of the floor space of the huge Atlantic City Auditorium will be utilized to house the convention population and the tremendous exhibit of canning machinery and supplies staged annually by the C.M. & S.A.

Because of its vastness and the demand on facilities, the three sponsoring associations—N.C.A., N.F.B.A. and C.M. & S.A.—this year have worked out a departmentalization of the convention period. The first period, Jan. 22 through Jan. 27, will be known as the National Food Sales Conference Period and its principal activity will be the thousands of contact meetings between individual food packers, brokers and buyers. The second period, Jan. 28 through 31, will be designated as the Food Congress on Production. Main emphasis during this period will be on production matters, including the four-day exhibit and the scheduling of research and raw-products conferences sponsored by N.C.A. This departmentalization will help take care of the heavy demand for hotel rooms. Sales forces, having completed their work on Jan. 27, will be able to relinquish their space to production forces arriving on Jan. 28.

Principle events of the convention will be as follows:

Jan. 22—Registration of brokers.

Jan. 23—Business meetings of the N.F.B.A.

Jan. 24–27—Sales appointments between canners, brokers, buyers.

Jan. 27–30—Machinery Exhibit.

Jan. 28 (morning)—N.C.A. program on distribution and marketing: speaker, Franklin J. Lunding, president, Jewel Tea Co. N.C.A. program on the general economic situation: speaker, The Honorable Charles Sawyer, Secretary of Commerce.

Jan. 28 (afternoon)— N.C.A. conferences on canning problems, raw products, food and drug hearings, fishery products.

Jan. 28–31—N.A.W.G.A. business sessions and grocery exhibits.

Jan. 29 (morning)—N.C.A. raw-products conference. (afternoon)—Program on production with the following speakers: Dr. Detlev W. Bronk, president, Johns Hopkins University, and Clarence B. Randall, president, Inland Steel Co.

Jan. 30 (morning)—Special N.C.A. meeting for corn canners.

European packaging

(*Continued from page 118*) when pushed, opens the jar instantly.

The same French firm which makes the contoured drawn-acetate containers for combs and aircraft parts shown in the English exhibits displayed at the Paris show a group of acetate-sheet "bottles," drawn in two sections and heat sealed together around the edge fins (Fig. 14). The containers use standard cork closures. They will hold certain viscous products, powders or tablets. They may be printed in one or more colors, or a label may be inserted to read through the container. These packages are said to be inexpensive, light weight, sturdy and can be made in large quantities.

The fibreboard canister continues to make progress in France, which is still fighting metal shortages. A number were displayed with convenient dispensing devices such as spouts, blow guns, etc. A very tough board, made from sugar-cane waste, was reported to have been developed for use in making a container for small quantities of lubricating oil, said to be less expensive than either metal or glass.

Many visitors were interested in a decorative cellulose tape made with fine floral wire sealed in each edge, available in a variety of designs and colors. This material has many uses for tying gift packages of sweets, flowers, perfumes and other items, where a neat, fresh-looking bow is required with a minimum of labor. A twist of the tape secures it in any position.

Two interesting vinyl packages were shown (Fig. 16 and 17). One is a small squeezable tube convenient for small quantities of creams or pastes. The other is suggested as an alternate for a large carboy and consists of a large, flexible, vinyl bag with formed neck and closure. This bag, of course, is protected for shipment by a wooden or fibreboard box similar to the glass carboy. Claimed advantages are lightness of weight and space saving, as the empty containers may be stored flat.

Plastics are also being widely used by the French in clever point-of-sale displays. Several of particular interest were made of molded, plastic-impregnated, wood pulp. One example (Fig. 18), a miniature filling station for Stephens ink, depicts a whimsical duck who serves as the filling-station attendant.

Conspicuously missing in the French exposition, with the exception of a handful of important firms, was French-manufactured packaging machinery. Most of the machinery exhibitors at the convention were from American, British or Swiss producers.

In spite of great efforts by several important firms, said the sponsors of the Paris Exposition, "France is still short of automatic machinery and equipment. The country is dependent on hand labor which hampers the prosperity of France, so rich in natural resources."

CREDITS: (Listed according to illustration numbers) ***1. Electric-light bulb carton, invented by Harry Bradley of Waddington, Leeds, England. 2. Peek Frean tin, designed by Richard Lonsdale-Hands Associates, London. 3. Scissors package, Hunt Partners, Ltd., London. 4 & 14. Drawn acetate containers, Etablissements Charles Nicolle, Paris. 5. Ampoule labeler, patented and manufactured by D. Trapow, Ltd., Engineers, London. 6 & 7. Molded-pulp containers, Universal Pulp Containers, Ltd., Milton of Campsie, Glasgow, Scotland. 8. Model supermarket, presented by Brown, Bibby & Gregory, Ltd., converters, London. 9 & 10. FlexSpout closure, Reads Ltd., Liverpool. 11 & 12. Strand precision pleater, Charles E. Douglas & Co., Ltd., London. 13. Unit-packaging machine, Ideal Packagings, Ltd., London. 15. Push-button jar closure, Fermeture O'Tic, Paris. 18. Stephens ink display, Plasto, Paris. Champagne box, Ets. Revelbois, Paris.***

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Atom tubes protected by "canning"

The tin can, familiar package for hundreds of every-day items, has taken on an important new role as a container for protecting delicate Geiger counter tubes. The tubes are the sensitive elements in the counters used for detecting atomic rays and radioactive materials, according to Tracerlab, Inc., which is the manufacturer of Geiger counter tubes.



The hermetically sealed cans are said to offer protection against the stresses of the atmospheric pressure changes during air shipment of tubes as well as against all kinds of rough handling.

J. A. Stewart, research vice president of American Can Co., is shown examining one of the "Geiger cans," which are similar to the familiar tennis-ball can and were adopted after careful research by Tracerlab electronic experts and the can-making firm's scientific staff. Each tube in its hermetically sealed corrosionproof metal container is packed in shock-absorbent batting.

Aluminum foil facilities expanded

With the establishment of a new aluminum foil processing plant at Vernon, Calif., and the opening of a sales office at Fresno, Calif., the Reynolds Metals Co., Richmond, Va., announces extensively expanded aluminum foil operations on the West Coast. The move was made to give the West Coast better service by bringing manufacture closer to customers, the company states.

Reynolds' Vernon plant, which is already in operation, is equipped to supply the 11 West Coast states with the types of laminated foils manufactured in the other Reynolds plants at Richmond, Va., Louisville, Ky., and Harrison, N. J. The new plant has 20,000 sq. ft. of manufacturing space.

In addition, Reynolds has entered into a contract with Pacific Press, a leading West Coast printer, also located at Vernon, to gravure-print labels, overwraps and an extensive line of packaging supplied by Reynolds to the dried fruit, dairy, confectionery, drug, cosmetic and other industries. Pacific Press prints *Time* and *Life* for the 11 Western states and up to now has been essentially a publisher printer.

The role of the Vernon plant will be strictly production, according to Reynolds. Sales on the West Coast will continue to be handled from the San Francisco, Los Angeles and Seattle offices. A new sales office has also been established at Fresno under the direction of Hayden Clement.

Other personnel transferred from Reynolds plants in the East to direct the Vernon plant are: L. B. Ward, formerly at the Harrison plant, as manager; W. J. Hartman, plant accountant; Stanley C. Kasper and Clinton C. Calhoun.

Reynolds also has launched an $8,000,000 expansion program in its Alabama operations which, when completed, will increase its number of employees in the area by several thousand men and will give the company one of the most complete, diversified aluminum manufacturing units in the world, according to Richard S. Reynolds, Jr., president.

This expansion includes the installation of new Lewis foil mills which operate at a speed of nearly a mile a minute; General Electric annealing ovens and many modern, high-speed processing units, and two new aluminum-covered buildings give an additional 200,000 sq. ft. of floor space. The new foil-rolling facilities being installed will allow Reynolds for the first time to produce much wider foil in one operation. A number of the newly established aluminum foil mills already are in production and Reynolds says its properties at Listerhill represent the largest private industrial investment with the largest private enterprise payroll in this section of the South.

Employee training

To encourage the acquisition of skills used in the manufacture of folding cartons by potential employees, a course of study has been inaugurated by the Philadelphia Group of the Folding Paper Box Assn. of America at the Bok Vocational School of that city.

As a result of the enthusiasm with which the course was received in Philadelphia, the New York and St. Louis Groups of the association are also setting up programs in public schools located in their respective cities.

The plan had its beginning early this year when Elwood L. Barrett, chairman of the Philadelphia Group, discussed with Dr. Edward M. Fee, vice principal of the school, the need of carton manufacturers in the Philadelphia area for men with specialized training.

Dr. Fee visited several representative folding box plants and pointed out that a good beginning for this type of work would be a course of instruction in the design and layout of steel rule dies. He suggested that prerequisites for such a course should include: machine shop practice, woodworking experience, a working knowledge of mathematics, creative ability and experience in doing accurate and exacting work.

The plan provides for a class of 20 students who have completed two school years of 30 hours per week, 15 hours per week having been spent in machine shop or pattern and cabinet making, and the remainder in study of the usual high school subjects and activities.

The first six months of the course are devoted to basic training in the design and layout of dies and the last six months include cooperative employment in a paper box plant in the Philadelphia area. Upon graduation, the student is qualified for full-time employment in a die room and additional part-time trade extension training at the school for 144 hours per year over a two-year period.

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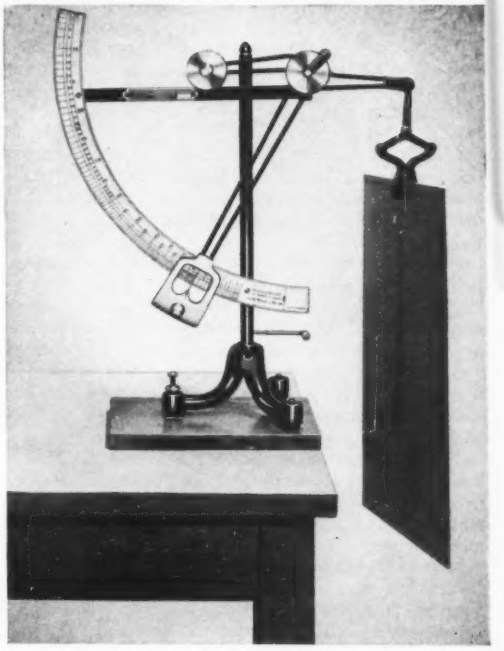


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Tapioca reborn

(*Continued from page 84*) reproduce realistically the color photographs of actual pudding dishes for the vignettes, but also to give clarity and sharpness to other elements of the design. The values of the identifying red and blue colors vary considerably from the standard four-color process scale and very careful color balance was necessary to prevent distortion in reproducing the four different vignettes. A method of positive control in the photographic extractions, as well as in the color correcting and plate making, made this possible.

As the new Minute Tapioca cartons make their first appearance this month on grocers' shelves throughout the country, a series of half-page, four-color advertisements in *This Week, Country Gentleman, Parents' Magazine* and the leading women's magazines also starts in which the new packages are featured, with copy directed primarily to the younger homemakers.

CREDITS: *Package design, Frank Gianninoto & Associates, New York, Cartons, U. S. Printing & Lithograph Co., Cincinnati, Ohio, using the "Eye-O-Matic" litho process. Color photography, Adams Studios, New York.*

Western Assn.

Four standing committees were appointed at the first regular quarterly meeting of the newly formed Western Packaging Assn. held last month in San Francisco.

Officials of member firms learned from William H. Jaenicke of Mailler Searles, Inc., the association's president, that a membership breakdown had proved the group's roster was truly representative of all Western packaging interests. Figures released by Mr. Jaenicke showed that 64.5% of member firms are from the packaging supply field, 29.5% are packaging and processing equipment manufacturers or distributors, 2% are in the materials-handling field and 4% is made up of members of the trade press and other lines of endeavor. While these ratios are expected to change somewhat as new member firms are admitted, they do prove, Mr. Jaenicke said, that the association is receiving support of all phases of the industry.

A booklet explaining the aims and objectives of the Western Packaging Exposition, he said, will soon be available. This will include the constitution and by-laws and the names of the group's officers and directors, in addition to listing its committees and committee members. Information about the association may be obtained from its secretary at 210 Mississippi St., San Francisco 7, Calif.

Appointments of committee chairmen and members constituted the main business of the meeting. These were selected, as far as possible, to include a cross-section of association membership.

Chairman of the standing committees are as follows: constitution and by-laws—F. R. Loetterle, National Adhesives Division, National Starch Products Co., Inc., San Francisco; aims and objects—Frank Molloy, Blake, Moffitt & Towne, San Francisco; packaging exposition—Alexander Donald, King Sales & Engineering Co., San Francisco; membership, E. J. Heimer, Clapp & Poliak, Inc., San Francisco.

British visitors

A United Kingdom specialist team arrived in the United States in December to begin a six-week study of American techniques of packaging various types of equipment and consumer goods.

The team is composed of 13 representatives of British trade and labor groups who will study American methods in an effort to learn techniques that may help Great Britain to increase productivity and develop her export trade. The team's visit is being sponsored jointly by ECA, the Anglo-American Council on Productivity and the British Government.

The studies will center on: package design costs, package buying procedure, standardization and simplification, marketing and relationship between packaging and retailing.

The group will visit American plants manufacturing packages for food, general chemicals, toys, cigarettes and tobaccos, pharmaceuticals and cosmetics.

Members of the team were nominated by the following British groups: British Tin Box Mfrs. Federation, Assn. of British Chemical Mfrs., British Federation of Master Printers, British Toy Mfrs. Assn., Food Mfrs. Federation, Inc., British Electrical & Allied Mfrs. Assn., Trades Union Congress, British Carton Assn., British Plastics Federation, Toilet Preparation & Perfumery Mfrs. Federation of Great Britain, Printing, Packaging & Allied Trades Research Assn. and Glass Mfrs. Federation. George Munro Ashwell, chief packaging adviser of the Imperial Chemical Industry, Ltd., Manchester, is leader of the team.

Jim Nash, New York specialist in grocery package design, addressed the first session at ECA headquarters.

Mesh bag problem

The packaging of citrus fruits in take-home-size mesh bags still holds problems for the shipper and handler, according to plant scientists of the U. S. Department of Agriculture. The big need, they say, is for an economically satisfactory master container that can be used to cut down handling at the market as well as at the shipping point.

Reporting on a two-year study of handling and transportation of prepackaged citrus fruits from Florida to Eastern markets, John R. Winston, G. A. Meckstroth and G. Lee Roberts stressed the need for techniques that will speed up packing and reduce handling.

Currently the greater part of the bagged crop is handled piece by piece. While an automatic bag-filling machine is under trial, most bags are now packed by hand. Since the war there has been an increase in the number of conveyor systems installed to move the bags from the packers to cars for shipment.

CORRECTION

Due to erroneous information at the source, the corrugated-and-wirebound box pack for a Burroughs adding machine was incorrectly identified on p. 115 of our November issue as the winner of the Harold Jackson Trophy at the recent Protective Packaging Competition of the Society of Industrial Packaging & Materials Handling Engineers. The pack pictured did win first prize in the export classification, but the Harold Jackson Trophy—which is for pilferproof packaging—went to a nailed wood box pack for a similar Burroughs machine. Both prize-winning packages were developed by Harry A. Hunt of Burroughs Adding Machine Co.

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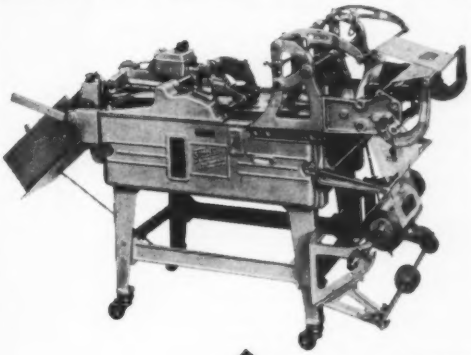


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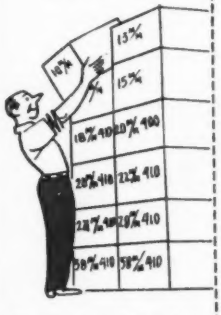


SIMPLEX makes two models for manufacturing bags from plain or printed roll stock. Model 1 makes bags in sizes up to 9" wide and 16" long. Model 4 makes the larger sizes up to 12" wide and 20" long—single or double wall, flat or gusset square bottom types. Length of bags infinitely variable by crank adjustment.

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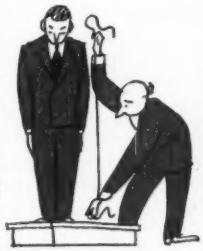
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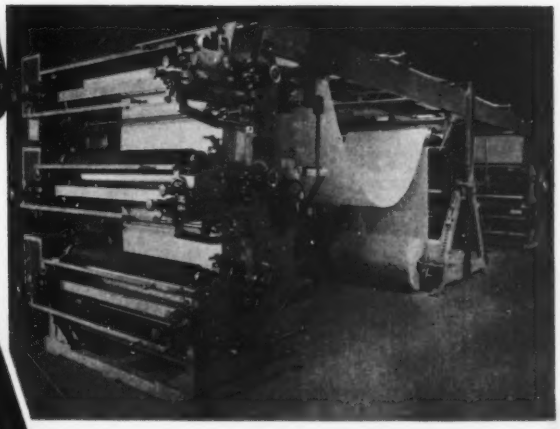
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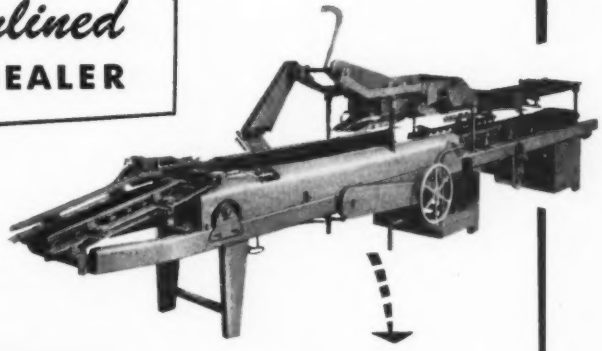
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MISCELLANEOUS EQUIPMENT for sale: 8' Niagara Metal Shear #196—$195. (2) Royal Bean Pumps 11 gpm—$500 each. Frick Ammonia Compressor w/ ammonia receiver and coils—$125. (10) Electric Motors, 3 phase, 220 V, 50 and 60 cycle, ½ to 10 HP. GE 7½ & 3¾, 220 V, 1710/850 RPM Electric Motors—$95. (2) GE 5 & 2½, 220 V, 1710/850 RPM Electric Motors—$75 each. Automatic Transporter TW 6760 Platform Type—$600. (2) Automatic Transporters, TW 6760 w/1 D-4 ten cell Edison Battery—$600 each. (2) Baldor Battery Chargers, type 60-F, 220 V, 60 cycle, 15 amp., with automatic timers—$145 each. Purex Corporation, Ltd., 9300 Rayo Avenue, South Gate, Calif., Mr. Latulippe.

EQUIPMENT FOR SALE: Automatic Transporter TW 6760 w/1 D-4 ten, all Edison Battery and Baldor Charger—$600. Automatic Transporter, TW 6760 w/ 1 D-4 ten cell Edison Battery—$550. Industrial Battery Charger type 60-F, 220 V single phase, 60 cycle D.C., Code 803 for ten Edison cells—$75. Baldor Battery Charger type 60-F, 220 V, 60 cycle—$125. Purex Corporation, Ltd., 4600 Chippewa Street, St. Louis, Mo., Mr. L. J. Pelletier.

FOR SALE
"STOKEWRAP" Machine. Unused. Model #BB 311 Augur fed for pillow type packages. Write Box No. 911, Modern Packaging.

EQUIPMENT FOR SALE: (100) Flats made by Colsen, 42" x 54" and 11" off floor, w/ 2-8" hard rubber wheels; also (3) hand jacks to lift front of flats—Flats $10 each; Jacks $25 each. Purex Corporation, Ltd., 335 Mehie Street, Arabi (New Orleans), La., Mr. Turner.

EQUIPMENT FOR SALE: Automatic Transporter, TW 6760 w/ 1 C-4 6 cell Edison Battery; also Baldor Battery Charger w/ time clock—$550. Yale hand lift truck—$125. Purex Corporation, Ltd., 6000 Denton Drive, Dallas, Texas, Mr. R. J. Rees.

AT REDUCED PRICES: Pneumatic Seale Co. Automatic Cartoning Unit Consisting of Automatic Carton Feeder, Bottom Sealer, Rotary Filling Machine, Top Sealer and Interconnecting Conveyor. Standard Knapp No. 429 Carton Sealer, 10 ft. Compression Units. Pony M and MX Labelrites. World Straightline Bottle Labeling Machine, 120 per min. Knapp E adj. to 1 gal. Wraparound Labeler, for jars with ears. Burt Automatic adjustable Wraparound Can & Jar Labeler. Stokes & Smith G4 and Automatic Duplex Auger Powder Fillers. Cappress attachment. Triangle Model SHA Auto. Net Weigher and Carton Sealer. Colton 4PF Worm-type and hand Cream Fillers. Tell Us Your Requirements—Union Standard Equipment Company 318-322 Lafayette St., New York 12, N. Y. CAnal 6-5335.

HELP WANTED

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MANUFACTURERS REPRESENTATIVE to handle complete line of polyethylene bags. Prefer man who has 1 or 2 allied lines. Should be contacting paper jobbers, paper merchants, food and drug packagers, etc. Good territories open. Write Dura-Lee Corp., 1828 Main, Kansas City, Mo. State qualification and lines you have at the present.

MISCELLANEOUS

MACHINERY WANTED: Wanted to buy, used Roto Bag Machines in good operating condition. Give full particulars, locality and price. Box 912, Modern Packaging.

CELOSEALS FOR SALE. Large quantity of 30 mm. x 15 mm. transparent DuPont celoseals. Condition: Guaranteed. Also 4 International straight line filling machines, 60/min. automatic. Continental Distilling Corporation, F. Lehman, 1429 Walnut St., Phila. 2, Pa.

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WANTED—SIMPLEX Bag Making Machines—Models #1 and #4. Cellophane Slitter up to 42". Cellophane Tube Machines. Combination Glassine and Cellophane Machine. Beck Sheeter and Electric Eye. Schultz Automatic. A Hayssen or Package Machinery wrapping unit. Box 900, Modern Packaging.

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WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

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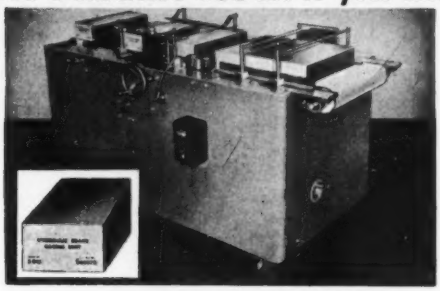
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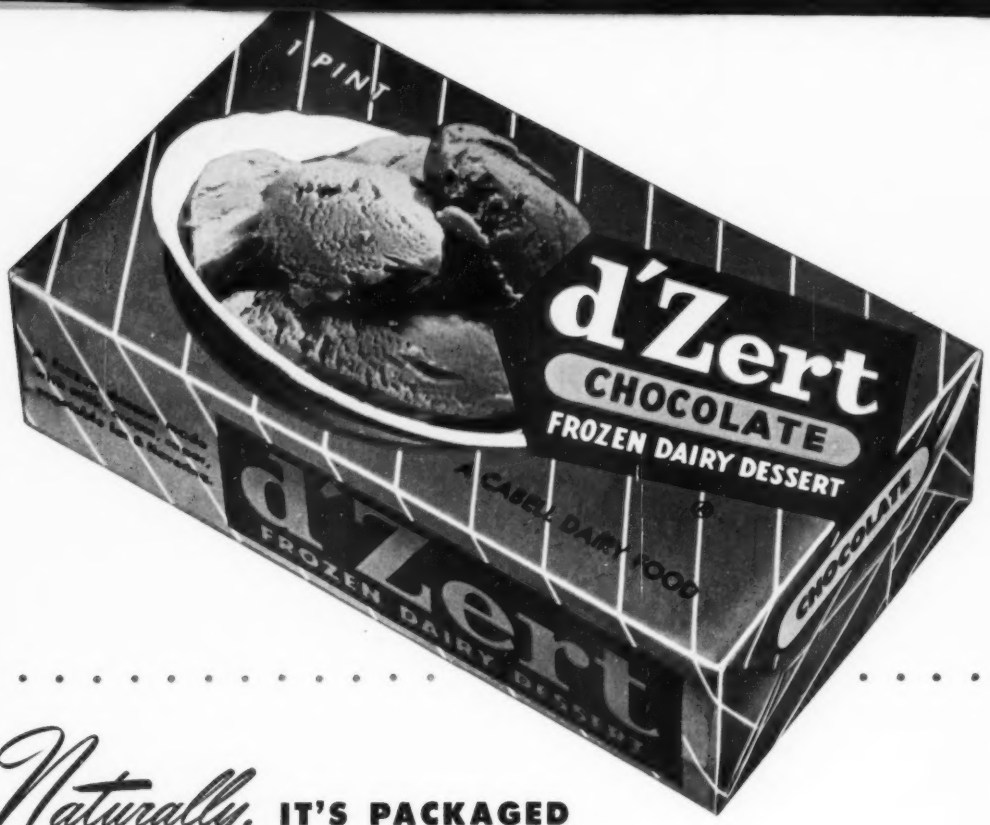
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